S. Hrg. 118–207

OVERWORKED AND UNDERVALUED: IS THE SEVERE HOSPITAL STAFFING CRISIS ENDANGERING THE WELL-BEING OF PATIENTS AND NURSES?

FIELD HEARING

[BEFORE THE]

COMMITTEE ON HEALTH, EDUCATION, LABOR, AND PENSIONS UNITED STATES SENATE

ONE HUNDRED EIGHTEENTH CONGRESS

FIRST SESSION

OCTOBER 27, 2023

Printed for the use of the
Committee on Health, Education, Labor, and Pensions

OVERWORKED AND UNDERVALUED: IS THE SEVERE HOSPITAL STAFFING CRISIS ENDANGERING THE WELL-BEING OF PATIENTS AND NURSES?

S. HRG. 118–207

OVERWORKED AND UNDERVALUED: IS THE SEVERE HOSPITAL STAFFING CRISIS ENDANGERING THE WELL-BEING OF PATIENTS AND NURSES?

FIELD HEARING

OF THE

COMMITTEE ON HEALTH, EDUCATION, LABOR, AND PENSIONS

UNITED STATES SENATE

ONE HUNDRED EIGHTEENTH CONGRESS

FIRST SESSION

ON

EXAMINING OVERWORKED AND UNDERVALUED SEVERE HOSPITAL STAFFING CRISIS ENDANGERING THE WELL-BEING OF PATIENTS AND NURSES

OCTOBER 27, 2023

Printed for the use of the Committee on Health, Education, Labor, and Pensions

Available via the World Wide Web: *http://www.govinfo.gov*

U.S. GOVERNMENT PUBLISHING OFFICE

54–520 PDF WASHINGTON : 2024

COMMITTEE ON HEALTH, EDUCATION, LABOR, AND PENSIONS

BERNIE SANDERS (I), Vermont, *Chairman*

PATTY MURRAY, Washington
ROBERT P. CASEY, JR., Pennsylvania
TAMMY BALDWIN, Wisconsin
CHRISTOPHER S. MURPHY, Connecticut
TIM KAINE, Virginia
MAGGIE HASSAN, New Hampshire
TINA SMITH, Minnesota
BEN RAY LUJÁN, New Mexico
JOHN HICKENLOOPER, Colorado
ED MARKEY, Massachusetts

BILL CASSIDY, M.D., Louisiana, *Ranking Member*
RAND PAUL, Kentucky
SUSAN M. COLLINS, Maine
LISA MURKOWSKI, Alaska
MIKE BRAUN, Indiana
ROGER MARSHALL, M.D., Kansas
MITT ROMNEY, Utah
TOMMY TUBERVILLE, Alabama
MARKWAYNE MULLIN, Oklahoma
TED BUDD, North Carolina

WARREN GUNNELS, *Majority Staff Director*
BILL DAUSTER, *Majority Deputy Staff Director*
AMANDA LINCOLN, *Minority Staff Director*
DANIELLE JANOWSKI, *Minority Deputy Staff Director*

C O N T E N T S

STATEMENTS

FRIDAY, OCTOBER 27, 2023

OVERWORKED AND UNDERVALUED: IS THE SEVERE HOSPITAL STAFFING CRISIS ENDANGERING THE WELL-BEING OF PATIENTS AND NURSES?

Friday, October 27, 2023

U.S. SENATE,
COMMITTEE ON HEALTH, EDUCATION, LABOR, AND PENSIONS,
New Brunswick, NJ.

The Committee met, pursuant to notice, at 9:02 a.m., in Nicholas Music Center, Rutgers University, 85 George St., New Brunswick, New Jersey, Hon. Bernard Sanders, Chairman of the Committee, presiding.

Present: Senators Sanders [presiding].

OPENING STATEMENT OF SENATOR SANDERS

The CHAIR. I have been on the Senate Health, Education and Labor Pension Committee for 18 years, and you know what, we have never had a larger meeting than this. So, thank you all very much.

[Applause.]

The CHAIR. This is an amazing turnout and I thank you all very much. And let me officially call the Senate Committee on Health, Education, Labor, and Pensions to order.

This is a hearing designed to discuss the working conditions that nurses at the Robert Wood Johnson University Hospital are facing and why they have been on strike for almost 3 months. That is what this hearing is about. I want to thank all of the panelists who are here with us today.

But before we get to the issue of why we are here, I wanted to thank all of the nurses who are in this room, the nurses who are watching this event on livestream, and the many, many nurses all over this country who put their lives on the line during COVID. You can remember, and you lived through it, and I can remember, 3,000 people a day dying during the worst public health crisis in 100 years.

We can all remember hospitals overflowing with patients. And remember, we remember nurses and doctors and other health care professionals going to work without the personal protective equipment that they needed. They don't have the gloves, they didn't have the masks, they didn't have the gowns.

They went to work every day to save us, and we owe them a debt of gratitude that can never be repaid. In my view, there are very few professions in America that are more important than nursing. But we all know doctors and others play an enormously important role in our health care system, but nurses are there when our babies are born.

You are there taking care of mothers who suddenly find themselves with the baby. You are there in the emergency rooms when we are injured. You are there when we are dealing with very serious illnesses. And you are there providing the humane and compassionate care that every human being needs at the end of their lives.

You are there and we thank you. And all of that and much more is why nursing is the most trusted profession in America. That is why nurses are the backbone of our health care system and why it is way past time for hospital executives to treat you with the respect and dignity you need.

Now, I don't want to divert too much from the purpose of the hearing today, but I don't have to tell anybody in this room, or I think anybody in America, that we have a health care system, whether it is New Jersey, Vermont, or any place else in America, that is dysfunctional and is broken.

I just want to say a word on this because it ties into what we will be discussing in a minute. I want everybody here to know that in the United States of America, we spend almost twice as much per capita as any other major country. Do you all know that? We are spending $13,000 for every man, woman, and child in this country.

We should have the best health care system in the world. But, not only do we not have the best health care system, we are far behind many, many other countries. Despite our huge expenditure, 85 million Americans are uninsured or underinsured, and you deal with those folks every day. Unbelievable, and it is not talked about at all.

Some 60,000 Americans die every single year because they don't get the medical help they need when they—help it, right? You have seen it. They are sick, and the doctor nurses, why don't you come in? Why didn't you come in 6 months ago when you had your symptoms? And the answer is, I was uninsured. I couldn't afford the deductible.

The function of a humane and civilized health care system is to provide quality care to all, not to make huge profits for the insurance companies, the drug companies. And another issue that is not talked about is our life expectancy, how long we live is much lower than other countries and is actually in decline.

For working class people, lower income people, the gap in their life expectancy with the rich is about 10 years in America. That is unacceptable. And on top of all of that, our broken health care system is one in which we do not have enough doctors, we don't have enough dentists, we don't have enough mental health practitioners, we don't have enough pharmacists.

Perhaps most disturbingly, we have a major and growing shortage of nurses. And that, in my view, is because of two basic rea-

sons. First, our nursing schools are unable to educate the large numbers of young people who want to become nurses because we are not investing in nurse educators.

Young people understand how important and what a wonderful profession nursing is. They apply for nursing schools. They can't even get in because we don't pay the educators the kind of salaries they should be paid. I should tell you that is an issue the Committee that I Chair is attempting to address.

But the second reason, and what this hearing is about today, is that there are over 1 million Americans who are licensed to be nurses but are no longer doing the jobs that they want to do and that they love because the working conditions in hospitals are often deplorable.

How sad it is, how tragic it is that these nurses want to do their jobs, compelled to do their jobs, no longer feel comfortable in doing that work. And that brings us to why we are here today in New Brunswick.

For nearly 90 days, some 1,700 nurses at the Robert Wood Johnson University Hospital have been on strike. What is this strike about? Yes, nurses at Robert Wood Johnson and workers all over this country want better wages and better benefits, but that is not the primary reason for this strike.

What the nurses have told me, and I have had the opportunity on several occasions to sit down and talk with these nurses, is that what this strike has everything to do with is the safety of their patients. With tears in their eyes, and I have been in the room, and I have seen the tears in their eyes, nurses have told me that they are simply unable to provide the quality of care they want to provide and the care their patients deserve.

The reason for that is the totally inadequate nurse, patient ratios that they are forced to deal with. What nurses in New Jersey, Vermont, and all over this country have told me is they have been stretched to the breaking point.

They tell me that they are stressed out. They are burnt out and are leaving the profession they love in droves because they are overworked, undervalued, and are forced each and every day to do more work with less resources.

In a moment, we are going to be hearing from the nurses and experts on this panel about this crisis and what Congress can and should do about it. I also want everybody here to know that the Committee did not just invite nurses and union representatives to this hearing. I very much wanted to hear both sides of the story. I think it is important to hear what the hospital has to say.

We invited Mr. Mark Manigan, the President of RWJ Barnabas Health, which owns the hospital, and Alan Lee, the CEO of the Robert Wood Johnson University Hospital to give us their views. We invited them.

We have been discussing their coming here for many, many weeks. Unfortunately, while Robert Wood Johnson told the media that their executives would be attending this hearing and were eager to set the record straight—that is what they told in the Jersey media. They have both declined.

They have both declined to be here today. So, let me, in their absence tell them what I would have asked them, some of the questions I would have asked them if they were here. I would have asked them why they have some 1,700 nurses out on strike for nearly 90 days to improve safety at a hospital system that made over $4 billion in revenue in the first 6 months of this year.

I would have asked them how their health care system could afford to spend over $100 million on traveling nurses since the strike began, but somehow cannot afford to mandate safe staffing ratios to improve the lives of patients and nurses at the hospital. I was also very curious to know how this nonprofit hospital could provide some $17 million in CEO compensation for one person in 2021.

Those were a few of the questions we had in mind. Let's be clear, what the nurses at Robert Wood Johnson are asking for, and it is important to make this clear, is not a radical idea. All they are asking for is for this very large, nonprofit hospital chain to mandate the same nurse, patient ratios that the State of California mandated some 20 years ago, and nurses in New York City won as a result of a strike some 10 months ago.

The research, and we are going to hear more about this from people who know more than I do, but the research on this issue is clear. After California mandated adequate staffing ratios at hospitals, patient safety went up, unnecessary deaths went down, the retention of nurses went up, and medical errors went down. In other words, the safe staffing law in California has not only saved lives, it has saved hospitals money.

When hospitals are adequately staffed, they are safer, they are more effective, and they are more cost efficient. As the Chairman of the Committee, I am working hard in a bipartisan way to increase the number of nurses in this country and to retain the nursing workforce that we have. But at the end of the day, the people who are going to bring about the change are the people in the system themselves.

For better or worse, nurses are much more respected than politicians. And you are the driving force behind change. I just want to conclude by simply saying it is rather extraordinary. I know going out on strike is not something that you do every day. You have never done it in your lives.

The idea that you are willing to go without paychecks to deal with—to walk on picket lines, to deal with all of the stuff out there in order to protect your patients is rather extraordinary.

On behalf of the American people, thank you. The first hear—the first panelists that we are going to hear from is Judy Danella. Judy has, as I understand it, worked at Robert Wood Johnson for 28 years, and is President of the United Steelworkers Local 4–200. Judy, the mic is yours.

STATEMENT OF JUDITH DANELLA, RN, STAFF NURSE, RWJ BARNABAS HEALTH, PRESIDENT, UNITED STEELWORKERS LOCAL 4–200, PISCATAWAY, NJ

Ms. DANELLA. Thank you, Chairman Sanders. Good morning, Chairman Sanders and every party participating here. Thank you

for the opportunity to speak on this important issue of safe staffing. Again, my name is Judith Danella.

I am first and foremost a staff nurse on Seven Tower in Robert Wood Johnson and President of Local 4–200, which represents 1,700 nurses at the Robert Wood Johnson facility in New Brunswick. As many people have noted, we are in the midst of a genuine crisis in the nursing profession.

An estimate from the National Council of State Boards of Nursing suggest that roughly 100,000 nurses have left the profession since 2020, and New Jersey is estimated to be one of the top three states that will be understaffed in this Nation. Worse yet, the crisis was not limited to the COVID–19 pandemic.

Rather, we are in dire straits. That same study also found that about 20 percent of current nurses were considering quitting their jobs. As frontline caregivers and nurses, we know that safe staffing is crucial to the health and well-being of our patients and our ability to provide quality, safe patient care.

It is crucial to our patient satisfaction rates, nursing retention, safety, and the future of nursing. One of the main reasons we find ourselves in this situation is because of the chronic understaffing by hospitals, which has made the nursing profession increasingly unsafe, both for nurses and for patients.

This dynamic creates a vicious cycle. Hospitals understaff their floors, which puts nurses in difficult, if not outright impossible situations, which can leave them spread too thin or at risk of getting hurt on the job, causing many nurses to quit, which only exacerbates our understaffing issues. In addition to making it more difficult to retain our existing workforce, this vicious cycle makes it harder to recruit new nurses.

I have seen firsthand how the hospital prefers to hire younger nurses, often cheaper nurses to replace the experienced nurses who have quit because of burnout and injury. The results have been in to bring new nurses directly out of college, with no prior clinical experience, and put them directly on the hospital floor with five to six patients.

Being a nurse is not an easy job. It requires a significant amount of training both for technical and emotional skills for the job. By throwing younger, inexperienced nurses straight into the deep end and providing them with minimal training and patients to cover, the hospital is setting them up for failure, only exacerbating the retention problem we face.

According to the American Nurses Association, nearly one in five nurses, newly licensed nurses, quit within the first year, often citing stressful working conditions, lack of leadership and supervision, and understaffing in the facilities they leave.

Let's be real clear, this issue of chronic understaffing is not the result of larger labor market forces, but it is a purposeful business decision by the hospitals. Cruelly, the hospital know this job is a vocation for us.

We do this job because we love it, and we love our patients and our profession. The hospital knows we as nurses will do whatever it takes to provide the type of care our patients need and that the

dedication that we have, and they use their dedication against us. Nurses go into the job for the patients, not for the money.

We love our patients. We are there to serve our patients and take care of our patients and the families. 85 days ago, over 1,700 nurses said enough is enough. We made the painful decision to go out on an unfair labor practice strike for safe staffing.

We are no longer willing to be compliant to a broken system where management puts profits over patients. These so-called nonprofit hospitals have more than enough money to invest in their workforce to ensure that we have safe staffing.

Instead, again, they line their pockets with the excess profits that come from chronic understaffing. According to an analysis conducted by the Senate HELP Committee earlier this month, Robert Wood Johnson Barnabas paid their CEO more than $17 million compensation in 2021.

Barnabas itself has already paid over $102 million on replacing—replacement nurses, paying them well in excess of what we earn on our job, and giving them better staffing ratios than we even ask for today. Clearly, the money is there to hire nurses, as well as investments that would work—the hospital a safer workplace, which would address the long term recruitment and retention issues. In closing, I want to emphasize this point.

Safe staffing is not just some abstract concept. It literally improves patient care, keeps more nurses in the profession, and most importantly, saves lives. I want to thank you, Chairman Sanders, for your leadership in bringing this to the front and foremost attention.

I appreciate the opportunity to speak at today's hearing, and I look forward to answering any questions you may have. Thank you very much.

[The prepared statement of Ms. Danella follows.]

PREPARED STATEMENT OF JUDITH DANELLA

Chairman Sanders, thank you for the opportunity to speak on this important issue of safe staffing. My name is Judy Danella, and I'm the President of USW Local 4–200, which represents over 1700 nurses at Robert Wood Johnson University Hospital in here New Brunswick, NJ. I am also a full-time registered nurse at the hospital and have worked there for more than 28 years.

As many people have noted, we are in the midst of a genuine crisis in the nursing profession. An estimate from the National Council of State Boards of Nursing suggested that roughly 100,000 nurses have left the profession since 2020.[1] And New Jersey is estimated to be one of the top 3 states in the Nation with a nursing shortage.

Worse yet, this crisis was not limited to the COVID–19 pandemic. Rather, we are still in dire straits: the National Council of State Boards of Nursing also found that about 20 percent of current nurses were considering quitting their jobs.[2] As frontline caregivers and nurses, we know that safe staffing is crucial to the health and well-being of our patients and our ability to provide quality, professional care. It is crucial to our patients' satisfaction rates, nursing retention, safety, and the future of nursing.

---

[1] *https://www.ncsbn.org/news/ncsbn-research-projects-significant-nursing-workforce-shortages-and-crisis*

[2] Ibid.

Chronic Understaffing Drives our Health Care Shortage

One of the main reasons we find ourselves in this situation is because of chronic understaffing by hospitals, which has made the nursing profession increasingly unsafe—both for nurses and their patients.

This dynamic creates a vicious cycle: hospitals understaff their floors, which puts nurses in difficult—if not, outright impossible—situations, which can leave them spread too thin or at risk of getting hurt on the job, causing many nurses to quit, which only exacerbates the understaffing issue.

In addition to making it more difficult to retain our existing workforce, this vicious cycle also makes it harder to recruit new nurses. I have seen it firsthand that hospitals now prefer to hire younger—often cheaper—nurses to replace the experienced professionals who have quit their jobs due to burnout or injury.

The result has been to bring in young nurses directly out of college—many with no prior clinical training—and to put them directly on the hospital floor, with as many as 5 or 6 patients at a time. Being a nurse is not easy, and it requires a significant amount of training, both for the technical and emotional skills required to do the job.

By throwing younger, inexperienced nurses straight into the deep end and providing them with minimal training and too many patients to cover at once, hospitals are setting them up for failure—only worsening the retention issues we face.

According to the American Nurses Association, nearly 1 out of 5 of newly licensed nurses quit within their first year—often citing stressful working conditions, lack of leadership and supervision, and understaffed facilities as key reasons for leaving. [3]

Chronic Understaffing is a Deliberate Choice

Let's be clear: this issue of chronic understaffing is not the result of larger labor market factors, but is a purposeful business decision by the hospitals. Cruelly, the hospitals know this job is a vocation for many of us.

Nurses go into the job for patients. It's not for money. We love our patients and the hospital knows whatever challenges we face on a daily basis, we will do what it takes to care for the patient and their families. Nurses wear many hats through the day and each and every day we serve the patient. And hospitals use that dedication against us.

87 days ago, our 1700 nurses said enough is enough, and made the painful decision to go on strike here for safe staffing. We were no longer willing to be complicit in a broken system where management puts profits over patients. These so-called "non-profit" hospitals have more than enough money to invest in their workforce to ensure that they have sufficient staffing for their patients.

Instead, they line their pockets with the excess profits generated from chronic understaffing. According to analysis conducted by the Senate HELP Committee earlier this month, RWJBarnabas paid its CEO more than $17 million in compensation in 2021. Also, RWJBarnabas themselves have announced that they've already paid more than $90 million to replacement travel nurses during the strike—paying them well in excess of what we earn on the job and giving them even better staffing ratios than we have. [4]

Clearly, the money is there to hire more nurses as well as other investments that would make hospitals safer workplaces, which would address the long-term recruitment and retention issues.

Policy Recommendations

That is why we need Federal legislation to address the issues that nurses like myself and the other 1700 nurses in my local face every day. With that in mind, I want to call attention to two very important pieces of legislation.

First, the Nurse Staffing Standards for Hospital Patient Safety and Quality Care Act introduced by Sen. Brown (D-OH) and Rep. Schakowksy (D-IL–09) would,

among other things, set minimum nurse-to-patient staffing requirements. With a Federal floor for safe staffing, such legislation would free us up from having to bargain—or in our situation, go on strike—over safe staffing, allowing us to focus on what we do best: caring for our patients.

---

[3] *https://www.nursingworld.org/practice-policy/nurse-staffing/why-nurses-quit/*
[4] *https://www.rwjbh.org/landing-pages/rwjuh-community-letter/*

Second is the Workplace Violence Prevention for Health Care and Social Service Worker Act that has been spearheaded by Sen. Baldwin (D-WI) and Rep. Courtney (D-CT–02). This bill would provide a path for the Occupational Safety and Health Administration (OSHA) to design regulations so that hospitals are held accountable to ensure safe workplaces for all parties, including their nurses. When hospitals are understaffed, patients and their relatives can become agitated and lash out at nurses. We need the combination of safe staffing legislation with protections around workplace violence in order to fully address the challenges facing nurses today.

The United Steelworkers (USW) has strongly supported both of these bills and hopes that today's hearing will renew a national conversation on each of them. Together, these two pieces of legislation would represent a significant step forward in fight to ensure dignity, safety, and compassion for nurses.

Conclusion

In closing, I want to emphasize this point: safe staffing is not just some abstract concept: it literally improves patient care, keeps more nurses in the profession, and most importantly, saves lives. I want to thank you Chairman Sanders for your leadership and for bringing attention to this important issue.

The CHAIR. Thank you, Ms. Danella. Our next witness is Carol Tanzi. Ms. Tanzi is a pediatric recovery room nurse at Robert Wood Johnson and a member of United Steelworkers Local 4–200. Ms. Tanzi.

STATEMENT OF CAROL TANZI, RN, BSN, PEDIATRIC RECOVERY ROOM NURSE, RWJ BARNABAS HEALTH, EDISON, NJ

Ms. TANZI. Thank you, Chairman Sanders. My name is Carol Tanzi, and I want to thank you for holding this hearing. I am a nurse at Robert Wood Johnson, and I have been there for 25 years, all of which have been understaffed.

As Judith mentioned, it is not an easy job or very glamorous. It is a calling. It is important because I know these children and their families want to get back to living their lives, celebrating birthdays and playing with friends.

My job is challenging, but I accept that and give my heart and soul every day. Being a nurse, there are moral, ethical, and legal obligations. I am bound by my New Jersey State license to uphold the highest standard of care for these human beings that are placed in my care. I am legally obligated to question anything that doesn't align with that very high standard.

Furthermore, to stop anything that could potentially harm my patient, which includes standing up to physicians and executive leadership, both considered positions of power. Patients don't come to the hospital unless they are very sick and very vulnerable.

Being a level one trauma center, one of three in New Jersey, these children are often the sickest of the sick, suffering from highly complex health conditions and all of that complexity can be very scary and confusing for patients and families.

The only way to administer excellent care is by building a relationship forged in trust. I must make a connection with each patient and family to get them to trust that I will give the best care. Until that trust is established, I am a stranger.

Every patient deserves and expects my full energy and attention. At that moment, their child is the most important thing in the

world. My ability to devote the required time to each patient allows them to relax and know they are my priority.

It also helps me to properly assess the child. We had a child who was in the maintenance phase of chemotherapy. He suffered with the same childhood cancer that his father survived. The anxiety that his family had over the child's condition was amplified times a million.

The child was going for an MRI to monitor disease progression. While I was prepping him, his parents mentioned he had vomited twice. Not normal, but they assumed it was because of a long car ride and not eating or drinking. He was never very interactive with the staff because he was traumatized from so many hospital experiences.

This morning he was just quiet for them. I asked a few more questions, last food or drink? Not sure. Any recent sick contacts? Well, he was at grandma's house the day before until 8.30 p.m., fell asleep in the car, so they just put him to bed. Despite sleeping nine and a half hours, he was still quiet.

I called the doctor to get an order for a blood sugar check and start an IV. This takes time. The blood sugar was 39, dangerously low. After calling the doctor back with results, starting an IV, and giving him a sugar solution, he started to behave more like himself. But during this time, my full energy and attention had to be here, explaining each step and answering questions.

With an already skeleton crew, my other two patients were not ready to go for their procedures. I was now under attack by the operating room manager and surgical team because of the delay. It is a horrible ripple effect, and it is the status quo. The pressure to be everywhere at once while keeping everyone safe is enormous.

This is physically and emotionally exhausting. I can't say no to any of the responsibilities, so I literally run ragged daily, still feeling like I haven't done enough. Nurses never turn their back on their patients. Never. This is our community, and we carry a huge amount of trauma and guilt because of it.

All nurses know that the people making decisions are not the people providing care. They are often not even health care professionals. If these execs have a loved one in the hospital, they will have a dedicated nurse, or what is called a 1 to 1 ratio. Not even close to what the rest of the public will get.

While the hospital is pushing a narrative of the importance of family and community, their actions clearly say otherwise. Nurses are not about propaganda. Looking good on paper is not the goal. Delivering quality care is.

Education is another extremely vital part of my job. I must be able to give the patient—the parents all of the information they need to be confidently taking care of their recovering child. Again, this takes time and should not be rushed or interpreted—I mean, interrupted. When you are short staffed, something is likely to be missed. If you are interrupted and can't get back quickly, stress levels rise.

In the hospital environment, everything is good until it isn't. Every nurse has many stories, and they stay with us, our personal

traumas. We know it can be better if we had more staff. It is common sense. It is not enough—it is not having enough nurses, nursing assistants, unit secretaries, environmental staff, transporters, patient monitors, and equipment is a recipe for disaster, and the consequences are being paid in human terms.

This is an unfair labor practice strike, and it is about dignity and respect—where am I—for patients and workers. It is about the fundamental right to quality health care for everyone. We walked out in the ultimate demonstration of patient advocacy.

We are sacrificing a salary because we could no longer be complicit with the Robert Wood Johnson toxic culture of understaffing and gaslighting when we do confront them. We know our patients deserve better, and so do we. The COVID health care heroes have been cast to the street.

We no longer accept the weight of the guilt that comes with unsafe staffing. It is morally and ethically wrong, and we want to get back to the bedside but refuse to return with the status quo. Spending $100 million on replacement workers is not the answer. These scams are money driven just by the nature of what they do. We are invested in seeing this hospital be the best in the states.

That is why we fight. It is mind boggling anyone could not want safe staffing, especially since money is no issue for this hospital. We demand robust and enforceable staffing provisions. We need strong recruitment and retention to be a priority, not leaving the nurses outside for 85 days and removing our health care benefits.

We need real accountability by the hospital so that this health care crisis can be corrected. This hearing is so important. It is so overdue for us to have a serious national conversation about safe staffing in our largely failing health care system.

Thank you, Chairman Sanders, for calling this hearing and giving me the chance to provide my testimony. Thank you for your fierce advocacy for all workers.

[Technical problems]—I look forward to your questions.

[The prepared statement of Ms. Tanzi follows.]

PREPARED STATEMENT OF CAROL TANZI

Chairman Sanders, my name is Carol Tanzi, and I want to thank you for holding this hearing. I am a proud member of USW Local 4–200 and a registered nurse in the Pediatric Recovery Room at Robert Wood Johnson University Hospital—where I have worked for the past 25 years.

Nursing is a Vocation

During that time, there is one thing that keeps me coming back to work every single day—and that's the patient. Nursing is more than just a job for us: it's a calling. We do this work because we want to see our patients live the fullest, happiest versions of their lives possible. Being in the Pediatric Recovery Room, I care for the kids in the hospital. Kids who just want to go back to school and play with their friends.

More than just working with the kids, my job as a nurse also involves me regularly attending to the needs of their parents, siblings, and relatives by meeting them on an individual level.

Robert Wood Johnson University Hospital is 1 of 3 Level I Trauma Centers in the state. That means that these kids in my unit—as well as other patients in the hospital—are often the sickest of the sick, suffering from complex health problems.

All of that complexity can be very confusing and scary for both the patient and their loved ones. The only way to administer excellent care is by building a relationship, forged in trust. I have to make a connection with each patient and family to get them to trust that I will take great care of them. This takes time and must not be rushed.

This is why the job of a nurse often takes multiple forms. There is the literal, physical caring for these patients: checking their vitals, giving them medication, helping them move around the hospital, and coordinating all of their care.

But there is also the emotional care we provide. As I said, given the complexity of health issues among our patient population, there are a lot of basic, human-level needs that patients and their families require: understanding the diagnosis they just received, cheering them up after a particularly brutal day of treatment, or dealing with the sadness that can come from having to miss birthdays, holidays, or anniversaries because they're in the hospital. Everyone deserves and expects my full energy and attention. At that moment, their child is the most important thing in the world.

The Physical and Emotional Tolls of Understaffing

All of this care takes a toll on us: being a nurse is physically and mentally exhausting, and it can often be a thankless job since we're dealing with people on their worst days. However, we know how important the care we provide is, and that is we continue to show up for our community every single day.

I always like to remind people: everyone in this room either has been a patient, will be a patient, or has a loved one who has been a patient at some point in their life. If you have a good experience or a bad experience, it will very likely depend on how many other patients your nurse has to cover at that time.

As nurses, we see members of our own community in this hospital every day: our family, our friends, our kid's elementary school teacher, a member of our church, and so on. It is for this reason that we see ourselves as an integral part of the greater New Brunswick community, and we take that responsibility to our community very seriously.

It is reasonable to expect the highest level of care and attention for your own family member, and we as nurses strive to give the most dedicated, compassionate, and holistic care as possible to all of our patients. All nurses know that the people making decisions are not the people doing the patient care.

If these hospital executives do have a loved one in the hospital, they will be sure to have one dedicated nurse for them, or a 1:1—not what the rest of the public gets. What we are asking for is really common-sense staffing: enough qualified nurses to care for the very sick patients we serve.

Unfortunately, chronic understaffing significantly limits our ability to provide this level of care. That physical and emotional care we provide takes time. But when you are in charge of 5, 6, or 7 patients at once, you sometimes literally do not have enough time to attend to all of the physical needs—let alone their emotional needs. That is not okay.

Caring for Our Community

Remember: we did not go out on strike for higher wages or better benefits. Rather, we felt we could no longer participate in Robert Wood Johnson's toxic culture of understaffing that prevented us from providing the high level of care that our community deserves. We no longer want to accept the weight of the guilt that comes with unsafe staffing. We morally and ethically know it is wrong.

I also want to highlight another point Judy made: she said the decision to go on strike was painful. It was painful. As I said, the patients in this hospital are a part of our own community.

While the hospital talks about the importance of "being a family" and "a community", their actions clearly say otherwise. Instead of listening to us and investing in their own, they choose to pay millions of dollars to literally fly in travel replacement nurses from all over the country who probably could not place New

Brunswick on a map before arriving here—let alone feel the personal connections that we do to our patients.

It is literally in their name: travel nurses. They fly in from all over the country, look for a strike, and try to make a profit from it by being paid sometimes double what we were making. That is not a recipe for loyalty and integrity.

Let me be clear: We want to be back in that hospital, taking care of our community in the expert and personal ways that only we know how.

But we cannot do that without robust and enforceable staffing provisions. We need sustainable ratios and real accountability on the part of the hospital.

Policy Recommendations

That is why we need Federal legislation to address the issues that nurses like myself and the other 1700 sisters in my local face every day. With that in mind, I want to call attention to two very important pieces of legislation.

First, the Nurse Staffing Standards for Hospital Patient Safety and Quality Care Act introduced by Sen. Brown (D-OH) and Rep. Schakowksy (D-IL–09) would, among other things, set minimum nurse-to-patient staffing requirements. With a Federal floor for safe staffing, such legislation would free us up from having to bargain—or in our situation, go on strike—over safe staffing, allowing us to focus on what we do best: caring for our patients.

Second is the Workplace Violence Prevention for Health Care and Social Service Worker Act that has been spearheaded by Sen. Baldwin (D-WI) and Rep. Courtney (D-CT–02). This bill would provide a path for the Occupational Safety and Health Administration (OSHA) to design regulations so that hospitals ensure safe workplaces for all parties, including their nurses. When hospitals are understaffed, patients and their relatives can become agitated and lash out at nurses. We need the combination of safe staffing legislation with protections around workplace violence in order to fully address the issues facing nurses today.

The United Steelworkers (USW) has strongly supported both of these bills and hopes that today's hearing will renew a national conversation on each of them. Together, these two pieces of legislation would represent a significant step in fight to ensure dignity, safety, and compassion for nurses.

Conclusion

That is why this hearing is so important. It is long overdue for us to have a serious, national conversation about safe staffing in our health care system. Thank you Chairman Sanders for calling this hearing and giving me the chance to provide my testimony.

The CHAIR. Thank you, thank you, Ms. Tanzi. Our next witness is Nancy Hagans, President of the National Nurses United and President of the New York State Nurses Association. Ms. Hagans.

STATEMENT OF NANCY HAGANS, RN, PRESIDENT OF NATIONAL NURSES UNITED, PRESIDENT OF NEW YORK STATE NURSES ASSOCIATION, BROOKLYN, NY

Ms. HAGANS. Good morning and thank you for giving me the opportunity to testify here today. Good morning, Senator Sanders.

[Technical problems]—hey, good morning. And thank you for giving me the opportunity to testify here today.

My name is Nancy Hagans, and I am the President of the New York State Nurses Association and the National Nurses United, the largest union and professional association of registered nurses in the country.

The nursing workforce is in crisis. An increasing number of nurses don't work in hospitals anymore because their employers have made this job unsafe for patients and for us. We are exhausted. We are overwhelmed.

We are suffering moral distress. The leading cause of this crisis is that hospital industry refuses to hire enough nurses to staff a unit safely. As President of NNU, I am constantly hearing from nurses who are severely short staffed. I know firsthand. I work in

a surgical floor where our staffing ratios was 1 nurse to 18 patients. It was insane.

That is more than four times what is scientifically safe. When nurses are understaffed, we don't have time to give our patients the care they need and the way they need it. As a result, our patients are on a high—on higher risk of preventable medical errors, avoidable complications, and even death. I have been in a situation where I know if I had fewer patients, I might have been able to save a patient's life. It is the worst feeling you can imagine.

Those experiences lead to moral distress. The hospital will claim there is a nursing shortage. There aren't enough nurses to hire to provide safe staffing levels. That is a lie. There were approximately—there are approximately 1.2 million licensed registered nurses who were not employed in 2022.

Here in New Jersey, they are over 56,000 active licensed registered nurses who are not employed as RN. There is no nursing shortage. There is a staffing crisis. If we want to solve the Nation's staffing in crisis, then we must increase nurse retention. To do that, the Government must mandate minimum nurse to patient ratio.

California has proven that rations work. Since 2004, the ratio law in California has improved patient care and increased nurse retention. A 2010 study found that if California's ratio and medical surgical units were implemented in New Jersey, they would have seen 13.9 percent fewer deaths in the state.

Hospital planned ratios would close them and are impossible to—[technical problems]—but California hospitals all came into compliance within 2 years. Despite all the evidence that shows the success of ratios, most employers will refuse to staff safely, which is why we are organizing to win staffing ratios.

This past January, after extensive negotiation at the bargaining table about staffing rations, nearly 7,000 nurses in New York City went on strike. After 3 days, we won a historic contract that included enforceable nurse to patient ratios.

Nurses here in New Jersey and many other states are taking similar actions, but we should not have to strike to win common sense solutions to put back our patients in our communities. It is the responsibility of the Government to enact the policies that will protect us.

On behalf of the 225,000 nurses represented by NNU, I strongly urge this Committee to pass the 11—the S. 1113, the Nurse Staffing Standard for Hospital Patient Safety and Quality Care Act sponsored by Senator Sherrod Brown.

This bill will establish mandatory minimum nurse to patient ratios modeled after the successful ratios in California. Every nurse and every patient across this country deserves the protection that staffing ratios provide.

If we want to solve the crisis and improve patient care in our Nation's hospitals, nurse staffing ratios must be implemented. Thank you. Thank you, Senator.

[The prepared statement of Ms. Hagans follows.]

PREPARED STATEMENT OF NANCY HAGANS

Good morning and thank you, Chairman Sanders, Ranking Member Cassidy, and Members of the Committee, for giving me the opportunity to testify here today. My name is Nancy Hagans, and I am President of the New York State Nurses Association (NYSNA) and President of National Nurses United (NNU), the largest union and professional association of registered nurses (RNs) in the United States, representing nearly 225,000 nurses across the country.

The nursing workforce is in crisis. Years of industry neglect at the hands of our hospital employers, exacerbated by unsafe conditions during the ongoing pandemic, have left registered nurses feeling abandoned, morally distressed, and physically and emotionally exhausted.

I have worked for almost 30 years at Maimonides Medical Center in Brooklyn, New York. Over the course of my career, the staffing situation in our hospitals has gotten worse, and in recent years, it has become completely unbearable.

In my testimony today, I will be illustrating the impacts of understaffing on nurses and on patients, and the role that hospital management plays in perpetuating this crisis. Across the country, nurses have been taking collective action through their unions, both at the bargaining table and through legislative advocacy, to improve staffing levels in their hospitals. But RNs should not have to spend this amount of time and energy fighting for the scientifically proven, common sense solution to our staffing crisis. Congress must take action to establish mandatory minimum nurse-to-patient staffing ratios at all hospitals across the country.

I. Short-staffing of registered nurses in acute-care hospitals harms both nurses and their patients.

Every nurse in the United States has horror stories from being understaffed in their hospital units. When I began working on the surgical floor at Maimonides hospital, our staffing ratio was one nurse to 18 patients—it was an impossible situation. To put this in context, the recommended safe ratio in a medical surgical unit is one nurse to four patients. We were caring for more than four times the number of patients than scientific evidence demonstrates is safe.

I moved to work in the ICU at my hospital, where I was caring for three critically ill patients at one time. The safe staffing ratio for the ICU is one nurse to two or fewer patients.

As President of the largest nurses' union in the country, I regularly hear from nurses across the country who are dealing with the same situation I was.

These short-staffing levels are dangerous for both patients and nurses.

As a nurse, when you're severely understaffed, you do not have the amount of time with each patient that you need to provide quality patient care. You can't give patients their medications on time; you can't turn them to prevent bedsores at regular intervals; you can't answer their calls promptly when needed because you have multiple other patients calling you at the same time. As a result, there are injuries, illnesses, and deaths that occur because a nurse is unable to give a patient the care they need.

I've been in situations where I know that if I had fewer patients, I might have been able to save a patient's life. It is the worst feeling you could imagine.

To do my job as a nurse well, I need to have enough time with my patients. Registered nurses have extensive education and clinical experience that enables us to provide safe, effective, and therapeutic patient care. These standards of nursing care can only be accomplished through continuous in-person assessments of a patient by a qualified licensed registered nurse. Every time an RN interacts with a patient, we perform skilled assessment and evaluations of the patient's overall condition. These assessments are fundamental to ensuring that the patient receives optimal care. Subtle changes in a patient, for example in skin tone, respiratory rate, demeanor, or affect, can provide critical information about their health and well-being. When RNs are understaffed, this information can be easily overlooked or misinterpreted by those without an RN's education and clinical experience.

Studies show that when RNs are forced to care for too many patients at one time, patients are at higher risk of preventable medical errors, avoidable complications,

falls and injuries,[1] pressure ulcers,[2] increased length of hospital stay, higher numbers of hospital re-admissions, and death.[3] Numerous studies have documented disparities in care in hospitals that serve communities of color.[4] Studies have also found that registered nurse staffing levels in hospitals that serve communities of color are often lower, contributing to these disparities in care.[5]

In addition to the harm that short-staffing causes to our patients, it also harms nurses. The failure by hospital employers to staff appropriately and provide the needed resources make it impossible for registered nurses to meet their ethical and professional obligations to provide safe, effective, and therapeutic nursing care.[6] These conditions have led nurses to experience severe moral distress and injury (often incorrectly labeled "burnout"); mental health issues, such as stress, anxiety, depression, and post-traumatic stress disorder; and physical exhaustion. Unsafe staffing levels leave nurses with the burden of having to decide who gets their care, and who doesn't. When your patient is harmed because you did not have the time to care for them, it is devastating.

When nurses are understaffed, we often do not have time to go to the bathroom, or to take a lunch or coffee break, because we have too many patients to care for at one time. We are literally running around for 12 hours, trying to provide the best care we can to far too many patients. It is exhausting and deeply stressful. Patient care suffers when nurses do not have adequate rest and meal breaks-it's dangerous for a nurse to be working when exhausted. As nurses, our state licenses hold us responsible for the nursing patient assignment. When we are working in unsafe staffing levels, we are constantly worried that our license is at risk because we cannot possibly do our jobs well enough.

Chronic short-staffing also increases the risks of workplace violence[7] and musculoskeletal injuries.[8] Workplace violence has become an epidemic in U.S. hospitals, with employees in health care and social service industries facing the highest rates of injuries caused by workplace violence of any industry. The delays in care caused by short-staffing can add increased stress and frustration for patients and families which can contribute to increased risk of violent incidents, while at the same time, nurses don't have enough staff to adequately respond to or help prevent violent incidents from occurring.[9] We're also at a higher risk of incurring musculoskeletal injuries because there may not be the staff needed to help with patient lifting, which often forces the RN to unsafely lift a patient by themselves.

---

[1] Kim J, Lee E, Jung Y, Kwon H, Lee S. Patient-level and organizational-level factors influencing in-hospital falls. J Adv Nurs. 2022 Nov;78(11):3641–3651. doi: 10.1111/jan.15254. Epub 2022 Apr 20. PMID: 35441709; PMCID: PMC9790490.

[2] Kim J, Lee JY, Lee E. Risk factors for newly acquired pressure ulcer and the impact of nurse staffing on pressure ulcer incidence. J Nurs Manag. 2022 Jul;30(5):O1-O9. doi: 10.1111/jonm.12928. Epub 2020 Feb 25. PMID: 31811735; PMCID: PMC9545092.

[3] Aiken, L., et al. "Hospital nurse staffing and patient mortality, nurse burnout, and job dissatisfaction." Journal of the American Medical Association. 2002; 288(16): 1987–93, 1990. (43 percent of RNs surveyed had high burnout scores, and a similar proportion were dissatisfied with their current job. Both burnout and job dissatisfaction are indicators of turnover.) Increased LOS, Mortality and Readmission: Dierkes, A. M., Aiken, L. H., Sloane, D. M., Cimiotti, J. P., Riman, K. A., & McHugh, M. D. (2022). Hospital nurse staffing and sepsis protocol compliance and outcomes among patients with sepsis in the USA: a multi-state cross-sectional analysis. BMJ Open, 12(3), e056802. *https://doi.org/10.1136/bmjopen*

[4] Carthon, J. M. B., Brom, H., McHugh, M., Daus, M., French, R., Sloane, D. M., Berg, R., Merchant, R., & Aiken, L. H. (2022). Racial Disparities in Stroke Readmissions Reduced in Hospitals With Better Nurse Staffing. Nurs Res, 71(1), 33–42. *https://doi.org/10.1097/*

[5] Lake, E. T., Staiger, D., Edwards, E. M., Smith, J. G., & Rogowski, J. A. (2017). Nursing Care Disparities in Neonatal Intensive Care Units. Health Serv Res. *https://doi.org/10.1111/1475—6773.12762.*

[6] National Nurses United. 2020. "Deadly Shame: Redressing the Devaluation of Registered Nurse Labor Through Pandemic Equity." National Nurses United. *https://www.nationalnursesunited.org/sites/default/files/nnu/graphics/documents/1220—Covid19—DeadlyShame—PandemicEquity—WhitePaper*

[7] Lipscomb J et al. 2004. "Health Care System Changes and Reported Musculoskeletal Disorders Among Registered Nurses." Am J Public Health. 94(8):1431—36. *https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1448467/.*

[8] Lee S et al. 1999. "Work-related Assault Injuries Among Nurses." Epidemiology. 10(6):685–91. *https://pubmed.ncbi.nlm.nih.gov/10535781/.*

[9] Fernandes, C. et al. The Effect of an Education Program on Violence in the Emergency Department. Annals of Emerg. Medicine. 2002; 39(1):47–55. A 2002 study found that interactive, hands-on workplace violence recognition and intervention training can be effective in reducing violence incident rates and, importantly, that refresher trainings are needed to maintain those effects.

II. The hospital industry intentionally implements short-staffing levels to reduce labor costs and increase profit margins.

At the heart of the horrific working conditions we experience are the hospital industry's intentional policies of short-staffing, a cost-cutting measure that has allowed hospital employers to save money on labor costs at the expense of quality patient care and nurse health and safety. The utter disregard for RNs health, safety, and lives by hospital employers became apparent early in the Covid–19 pandemic. It was clear then as it remains now that hospital employers will prioritize their profit margins over the health and safety of nurses and patients.

Labor is the largest cost in any hospital. To increase profit margins, hospital employers deliberately refuse to staff our Nation's hospitals with enough nurses to provide quality patient care. Hospitals often refuse to hire nurses (even during a pandemic), call nurses off a shift after they've already come in to work, and knowingly ask for fewer nurses than necessary to care for patients. In NNU's most recent survey of more than 2,800 nurses from Sept. 22 through Nov. 28, 2022, 56.8 percent of hospital nurses reported that staffing has gotten slightly or much worse recently and nearly half of hospital nurses reported that their facility is using excessive overtime to staff units.

For several decades, the hospital industry has attempted to deskill the nursing profession by inappropriately pushing care to the lowest-cost and least-regulated setting, including displacing RNs with unlicensed or lower-licensed staff. Further, the industry has been replacing RN professional judgment with health information technology, automation, remote monitoring tools, and "acute-care hospital-at-home" programs where patients are forced to rely on family members or themselves to provide complex clinical care that they have no training or licensing to provide. The hospital industry's attempts to break down registered nursing practice into tasks (often called "routinization"), and shift the tasks to unlicensed and lower-licensed staff (i.e., deskilling) to reduce labor costs, undermines safe patient care.

III. The impacts of unsafe staffing levels are causing registered nurses to leave bedside nursing in acute-care hospitals, creating a national staffing crisis.

Hospital employers have been perpetuating the false narrative that there is a "shortage "of registered nurses in the United States. They claim that they cannot hire enough nurses to staff appropriately and safely. First and foremost, it is imperative that we clarify that there is not a national shortage of registered nurses in the U.S., and we can prove this by looking at national employment and licensure data.

According to statistics from the National Council of State Boards of Nursing and the U.S. Bureau of Labor Statistics, there were approximately 1.2 million licensed registered nurses who were not employed as RNs in 2022. The trend continues when you look at state specific data as well. Here in New Jersey, there are over 56,000 actively licensed registered nurses who were not employed as RNs in 2022. In New York, more than 175,000 actively licensed registered nurses are not currently working. In a 2022, NNU survey, more than half of nurses (55.5 percent) surveyed reported that they have considered leaving nursing.

We know that while the nursing workforce pipeline can and should be strengthened, in particular to diversify the nursing workforce and increase the number and diversity of preceptors and nursing school faculty, the key problem in our staffing crisis is not the number of graduating RNs. Every year the United States continues to graduate more new nurses out of nursing school than ever before.[10] Experts project that over the next decade, the national RN workforce will not only replace the expected 500,000 retiring RNs but expand the workforce by almost one million registered nurses.[11] At the same time, data from 2019 to 2022 shows that the entirety of growth in RN employment during that period has occurred outside of hospitals and instead into other settings like outpatient clinics and doctors' offices.[12]

As demonstrated by national data, we don't have a "nurse shortage," but we do have a staffing crisis in our hospitals, brought on by the lack of good nursing jobs

---

[10] National Council of State Boards of Nursing. 2009–20. "NCLEX Pass Rates." National Council of State Boards of Nursing. *https://www.ncsbn.org/exams/exam-statistics-and-publications/nclex-pass-rates.page.*

[11] Buerhaus, P. I., Staiger, D. O., Auerbach, D. I., Yates, M. C., & Donelan, K. (2022). Nurse Employment During The First Fifteen Months Of The COVID–19 Pandemic. Health Affairs, 41(1), 79–85. *https://doi.org/10.1377/hlthaff.2021.01289.*

[12] Ibid.

where RNs are valued for their work, have strong health and safety protections, and are not required to care for more patients at any given time than is safe for optimal, therapeutic care.

Hospital employers can hire enough RNs to safely care for our patients, but for decades they have refused to do so. Instead, they continue to ask nurses to do more with less, putting our patients in danger. As a result, many nurses are leaving the hospital bedside.

IV. Mandatory minimum nurse-to-patient ratios will increase nurse retention and improve patient care.

There are decades of scientific evidence that demonstrates mandated minimum nurse-to-patient ratios save lives. California is the only state in the country that has an RN-to-patient ratios statute that covers every acute-care hospital unit and department. The fight to win legislation in California was a decade-long fight that was successful in 1999 because of an extensive grassroots campaign led by union nurses at the California Nurses Association, an NNU affiliate. Despite opposition from the hospital industry, the nurses in California won the ratios law, which established the gold-standard for mandatory minimum nurse staffing ratios, and regulations were implemented in 2004.

Now, nineteen years after implementing minimum nurse-to-patient ratios in California, a multitude of studies confirm the significant impact that mandatory, minimum staffing ratios have had on improving patient outcomes. A seminal study from 2010 compared California hospitals' post-implementation of the ratios law to hospitals in other states, including the state of New Jersey where this hearing is being held. The study found that if California's ratios in medical surgical units were implemented, New Jersey would have 13.9 percent fewer patient deaths.[13] A more recent study found that last year, patients in California hospitals received on average three more hours of nursing care than hospitalized patients in other states.[14] If the ratios mandate was implemented nationally, research estimates that thousands of lives would be saved each year. The California ratios mandate has proven to reduce costs for hospitals by improving nurse safety and job satisfaction,[15] reducing spending on temporary RNs,[16] overtime costs,[17] and staff turnover.[18] Nurses from other states flock to California because the working conditions are so much better than the rest of the country.

Nurses in other parts of the world are also taking up the fight for safe staffing ratios. The Center for Health Outcomes and Policy Research in Queensland, Australia conducted one of the most prominent studies on nurse-to-patient-ratios legislation and it's impacts on health outcomes that was funded by the government of Queensland. Considered the "gold standard" in scientific literature regarding nurse staffing, the study evaluated health outcomes before and 2 years after the implementation of the state staffing ratios law. Published by The Lancet, the study found that mandated minimum RN-to—patient ratios prevented thousands of hospital deaths annually, and saved hospitals millions of dollars by reducing average length of stay and rates of readmissions within thirty days of leaving the hospital.[19]

---

[13] Aiken L et al. 2010. "Implications of the California Nurse Staffing Mandate for Other States." Health Services Research. 45(4):204–21. *https://onlinelibrary.wiley.com/doi/10.1111/*

[14] Dierkes, A., Do, D., Morin, H., Rochman, M., Sloane, D.M., McHugh, M.D. (2021). The impact of California's staffing mandate and the economic recession on registered nurse staffing levels: A longitudinal analysis. Nursing Outlook, 70(2):219–227

[15] Spetz J. 2008. "Nurse Satisfaction and the Implementation of Minimum Nurse Staffing Regulations." Policy Polit Nurs Pract. 9(1):15–21. *https://pubmed.ncbi.nlm.nih.gov/18390479/*

.

[16] Schmit, J. "Nursing shortage drums up demand for happy nomads." USA Today. June 9, 2005. (Quoting Tenet Health System Chief Nursing Officer. Travel nurses cost hospitals at least 20 percent more than a nurse employee even when benefits are factored in. Full-time employees are paid at least 1.5 times their regular salary for overtime hours worked.)

[17] Ibid.

[18] Bland-Jones, Cheryl. "Revisiting Nurse Turnover Costs, Adjusting For Inflation." Journal of Nursing Administration. 2008; 38(1): 11–18, 12. (Finding that the total RN turnover costs for fiscal year 2017 were between $7,875,000 and $8,449,000, and estimating an RN annual turnover rate at 18.5 percent.) Aiken. 2010. supra, note 5 at 913. (Finding that California RNs, after the implementation of the mandated nurse-to-patient ratios, experienced burnout at significantly less rates than those in New Jersey and Pennsylvania. 20 percent California RNs reported being dissatisfied with their job, compared to 26 percent in New Jersey, and 29 percent in Pennsylvania. Both burnout and job dissatisfaction are precursors of voluntary turnover.)

[19] McHugh MD, Aiken LH, Sloane DM, Windsor C, Yates P. 2021. Nurse staffing and patient mortality, readmissions, and length of stay: a prospective study of the effects of nurse-to-patient

Continued

Despite the abundance of evidence that shows the success of minimum nurse staffing ratios, most hospital employers continue to refuse to implement safe staffing levels. The hospital industry continues to use the same arguments against nurse staffing ratios that they used before the California ratios law was passed. However, these arguments are easily dispelled by the success of the California law.

Hospital employers often claim that ratios laws would force hospitals to close, and that nurse "shortages" would prevent hospitals from being able to meet ratio mandates. These criticisms proved false in the implementation of the ratios law in California. Just 2 years after the California law went into effect, California hospitals were in compliance with the ratios a super-majority of the time. The majority of safety-net hospitals, including rural hospitals with generally lower patient levels, were also in compliance.[20] Of the 69 hospitals defined as rural acute-care facilities in California by the Department of Health Services, only 16 applied for an exemption to the law in 2004, and just 11 exemptions were granted.[21] In the years since, these hospitals have been in compliance.

V. In the absence of Federal regulation, Registered Nurses across the country are organizing collectively to win safe staffing ratios.

Across the country, registered nurses are sick and tired of being undervalued by our hospital employers. We want the best care for our patients, and to deliver that care, we need safe and healthy workplaces. So, we are organizing collectively to win safe staffing ratios.

That is why nearly 7,000 New York nurses with the New York State Nurses Association went on strike this past January. Nurses at Montefiore Bronx and Mount Sinai Hospital in Manhattan went on strike to win staffing ratios.

The strike came after a years-long legislative battle at the state level. In 2021, we passed laws that established a process for setting and enforcing staffing standards at every hospital and nursing home—no matter if the facility is public or private, union or non-union. This law laid the groundwork for us to more effectively fight for numerical staffing ratios in our contracts.

After extensive negotiations at the bargaining table about staffing ratios and enforcement, we ended up going on strike.

It takes a lot for nurses to decide to strike. If nurses are going on strike, then you know something is really wrong inside the hospital. We went on strike because it was our only option to fight for safe nurse-to-patient staffing ratios.

We went on strike for 3 days in New York City. We had incredible support not only from New Yorkers, but from people all over the country and the world. After 3 days on strike, we won historic contracts that include enforceable nurse-to-patient staffing ratios with expedited arbitration and potential financial penalties payable to nurses when employers fail to uphold contractual safe staffing standards. It was a significant win for nurses in New York and we're going to continue to use our contract negotiations to win safe patient ratios and strong staffing enforcement at other hospitals in New York.

We're not the only nurses taking strike action to make this happen. Nurses in Kansas, Texas, Minnesota, and many other states have been taking similar actions to win staffing ratios.

VI. Congress must pass Federal legislation to establish mandatory minimum nurse—to-patient ratios in order to improve the staffing crisis.

Nurses should not have to go on strike to win common sense policy solutions that will improve patient care for everyone in our communities. We should be focusing on our patients and on health care. But the greed of our employers and the negligence of our elected officials has left us with no other choice.

Instead, Congress must step up and take action to give nurses and patients basic protections. We strongly urge this Committee to swiftly pass S. 1113, the Nurse Staffing Standards for Hospital Patient Safety and Quality Care Act of 2023 sponsored by Senator Sherrod Brown. The bill would establish mandatory minimum staffing ratios based on the successful ratios that have been implemented in Cali-

---

ratio legislation in a panel of hospitals. The Lancet. May 11, 2021: *https://doi.org/10.1016/S0140—6736(21)00768—6*

[20] Aiken, L. H. (2010). The California nurse staffing mandate: implications for other states. LDI Issue Brief, 15(4), 904–921.

[21] Lauer, G. "Reaction To Nurse Staffing Rules Generally Favorable." California Healthline. October 25, 2004.

fornia. It would require hospitals to develop annual safe staffing plans that meet the bill's minimum staffing ratios, and it would require hospitals to provide additional staffing based on individual patient care needs. Hospitals would be required to post notices on minimum ratios and maintain records on RN staffing. The bill provides whistleblower protections for nurses who speak out against assignments that are unsafe for the patient or the nurse, and it authorizes the Secretary of Health and Human Services to enforce the minimum RN staffing ratios through administrative complaints and civil penalties.

On behalf of the 225,000 registered nurses represented by National Nurses United, I strongly urge the Committee to work to improve patient care, protect our nurses, and solve the nurse staffing crisis in this country, by implementing safe staffing nurse-to-patient ratios in every hospital in this country.

ATTACHMENTS

1. National Nurses United, Letter of Support of the Nurse Staffing Standards for Hospital Patient Safety and Quality Care Act, H.R. 2530

2. National Nurses United, Proposed Congressional Actions to End the Industry-Created Nurse Staffing Crisis

3. National Nurses United, Written Testimony to Senate Health, Education, Labor, and Pensions Committee in advance of hearing titled, "Examining Health Care Workforce Shortages: Where Do We Go from Here?"

4. National Nurses United, Protecting Our Front Line: Ending the Shortage of Good Nursing Jobs and the Industry-created Unsafe Staffing Crisis. Available at *https://www.nationalnursesunited.org/sites/default/files/nnu/documents/1121—StaffingCr isis—ProtectingOurFrontLine—Report—FINAL.pdf*

5. National Nurses United, RN Staffing Ratios: A Necessary Solution to the Patient Safety Crisis in U.S. Hospitals. Available at *https://www.nationalnursesunited.org/sites/default/files/nnu/graphics/documents/NNU—Ratios—White—Paper.pdf*

6. National Nurses United, Deadly Shame: Redressing the Devaluation of Registered Nurse Labor Through Pandemic Equity. Available at *https://www.nationalnursesunited.org/sites/default/files/nnu/graphics/documents/1220—Covid19—DeadlyShame—PandemicEquity—WhitePaper*

[SUMMARY STATEMENT OF NANCY HAGANS]

The nursing workforce is in crisis. Years of industry neglect at the hands of our hospital employers, exacerbated by unsafe conditions during the ongoing pandemic, have left registered nurses feeling abandoned, morally distressed, and physically and emotionally exhausted. Intentional short-staffing in hospitals has been the leading cause of this nurse staffing crisis. In my testimony, I will illustrate the following:

I. Short-staffing of registered nurses in acute-care hospitals harms both nurses and their patients. As a nurse, when you're severely understaffed, you do not have the amount of time with each patient that you need to provide quality patient care. As a result, there are injuries, illnesses and deaths that occur because a nurse is unable to give a patient the care they need. These conditions have led nurses to experience severe moral distress and injury, and put them at higher risk for workplace violence and musculoskeletal injuries.

II. The hospital industry intentionally implements short-staffing levels to reduce labor costs and increase profit margins. Labor is the largest cost in any hospital. To increase profit margins, hospital employers deliberately refuse to staff our Nation's hospitals with enough nurses to provide quality patient care.

III. The impacts of unsafe staffing levels are causing registered nurses to leave bedside nursing in acute-care hospitals, creating a national staffing crisis. According to national employment and licensure data, there were approximately 1.2 million licensed registered nurses who were not employed as RNs in 2022. While the nursing workforce pipeline can and should be strengthened, the key problem in our staffing crisis is not the number of graduating RNs. Hospital employers can hire enough RNs to safely care for our patients, but for decades they have refused to

do so. Instead, they continue to ask nurses to do more with less, putting our patients in danger. As a result, many nurses are leaving the hospital bedside.

IV. Mandatory minimum nurse-to-patient ratios will increase nurse retention and improve patient care. There are decades of scientific evidence that demonstrates mandated minimum nurse-to-patient ratios save lives. California is the only state in the country that has an RN-to-patient ratios statute that covers every hospital unit. These regulations were implemented in 2004 after an extensive grassroots campaign led by union nurses in California. The California regulations are the gold-standard for mandatory minimum nurse staffing ratios. In the years since, numerous studies have shown that the staffing ratios have improved patient outcomes and nurse retention rates.

V. In the absence of Federal regulation, Registered Nurses across the country are organizing collectively to win safe staffing ratios. Across the country, registered nurses are sick and tired of being undervalued by our hospital employers. We want the best care for our patients, and to deliver that care, we need safe and healthy workplaces. So, we are organizing collectively through collective bargaining and strikes to win safe staffing ratios in my State of New York, and in countless other states across the country.

VI. Congress must pass Federal legislation to establish mandatory minimum nurse to patient ratios in order to improve the staffing crisis. Nurses should not have to go on strike to win common sense policy solutions that will improve patient care for everyone in our communities. We should be focusing on delivering care to our patients. Congress must pass S. 1113, the Nurse Staffing Standards for Hospital Patient Safety and Quality Care Act, to establish mandatory minimum nurse staffing ratios at all hospitals across the country.

The CHAIR. Thank you, Ms. Hagans. Our next witness is Debbie White, President of the Health Professionals and Allied Employees Union.

STATEMENT OF DEBBIE WHITE, RN, PRESIDENT, HEALTH PROFESSIONALS AND ALLIED EMPLOYEES, MARLTON, NJ

Ms. WHITE. Thank you, Chairman Sanders, for organizing this crucial hearing. I am Debbie White. I have been a nurse for 35 years. I am also President of HPAE, the largest health care union in the State of New Jersey.

We represent 14,000 health care professionals across the state. First, I want to say, steelworkers, you are my heroes, and we stand in support. I am also an AFT vice president, and Randy says, hi, Chairman, and greetings on behalf of AFT's 200,000 health care professionals. My colleagues here mirror the experiences of our HPAE members.

I have also talked in detail to my colleagues across the country. I have heard the same exact stories in Alaska, Oregon, Montana, Ohio, Connecticut, Pennsylvania, and many others where we are represented. Hospitals are in crisis.

Why? Because nurses aren't going to stay at the bedside. We have 140,000 licenses, nursing licenses in the state, and only a small percentage, 70,000, are willing to work in the hospitals. Not simply because of the pandemic, and we all know the pandemic was horrific. But it is the straw that broke the camel's back, but it goes much further back than this. It goes back to the corporatization of health care.

Whether for profit or nonprofit, health care has become big business. What is the goal of big business? Make money. We make

money off your sickness in this country. In New Jersey, most of our hospitals have made tremendous profits even during the pandemic.

One would think then the primary focus for spending those profits would be on staffing. Instead, and this has gone on for decades, nursing care, in fact all hospital health care is a line item budget cut to its lowest number in order to maximize profits to spend elsewhere.

Hospital management and corporations that run hospitals are too often focused on adding a new fountain in the lobby and other esthetics or paying for glossy advertisements and million dollar Super Bowl ads, rather than building up staff. Oh, and have I mentioned they are also spending a lot on anti-union firms.

[Technical problems]—lobbying efforts against safe staffing laws and replacement costs during strikes. And by the way, this employer should be embarrassed to tell the public what they have spent on replacement costs. They should be a shame.

Last year, HPAE contracted with Change Research to survey nurses in the State of New Jersey who work in hospitals and here is what we found. 30 percent of the nurses that we surveyed are no longer—they have left hospitals.

They are no longer a hospital nurses. Of the 70 percent that remain, 72 percent have recently considered leaving. Most troubling is this. Of those with 0 to 5 years? experience, 95, 95 say they are likely to leave soon. The No. 1 reason, poor staffing. The second is burnout related to poor staffing.

We can't retain nurses in hospitals because of understaffing. Yes, we need to recruit nurses into the profession. Of course, we do, and we need to recruit educators as well. But without addressing retention, that is, stopping the migration out of hospitals, it is as if we are trying to fill a bucket full of holes with water.

Those holes are the working conditions of our nurses. So, we are laser focused on staffing—on this staffing crisis and the solution. The AFT staffing campaign is called Code Red and has resulted in safe staffing laws in Oregon and Connecticut, among other states. The Pennsylvania bill for safe staffing is likely to pass in the second House.

All of these bills will result in enforceable staffing ratios for nursing. Health care unions, we are leading the way, make no mistake about it. By now, we have all heard the slogan, safe staffing saves lives. It is true, though. We have 20 years? worth of data since California adopted safe staffing legislation.

The data is clear. The staffing law California did increase—did decrease, excuse me, patient deaths, did decrease negative outcomes for patients like hospital acquired infections, bedsores, and medical errors. It did decrease injuries both for patients and nurses. And it did increase retention of nurses at the bedside.

All of this saved hospitals millions. So safe staffing saves money. However, we have seen that hospitals will not be good actors. They will never, as you can see by my colleagues here who are missing, never agree to safe staffing on their own. It is why we need legislation. We need laws to force hospitals to staff safely.

We have our own bill here in New Jersey, supported by steelworkers, and all other unions in the State of New Jersey. It is S304 and 84536. We are encouraged by the success of other states.

We are encouraged by the attendance in this room. Chairman, with your help, we will be able to save first California, then Oregon, now New Jersey. Thank you.

[The prepared statement of Ms. White follows.]

PREPARED STATEMENT OF DEBBIE WHITE

Good morning,

Thank you, Chairman Sanders, for organizing this crucial hearing. I am Debbie White; I have been a nurse for 35 years. I am also president of the Health Professionals and Allied Employees, which is the largest healthcare union in New Jersey, representing 14,000 healthcare professionals across the state. I am also a vice president of the American Federation of Teachers.

HPAE is an affiliate of the AFT, the fastest-growing healthcare union in the country and second to our sister union, National Nurses United, in the number of nurses represented. AFT President Randi Weingarten sends her greetings and thanks you on behalf of the AFT's 200,000 healthcare professionals.

Over the past few months, HPAE has stood with our heroes, the United Steelworker nurses of Robert Wood Johnson University Hospital, because we know that the experiences of those on this panel are also the stories of HPAE nurses throughout New Jersey and nationwide. As an AFT vice president, I have talked in detail to my colleagues across the country and have heard the same stories in Alaska, Connecticut, Montana, Ohio, Oregon, Pennsylvania and others.

Healthcare is in crisis. Not simply because of the pandemic, although that was the proverbial straw that broke the camel's back. No, it goes much further back to the corporatization of healthcare. In other words, healthcare corporations have become big business, and the goal of big business is to make a profit.

Whether for-profit or nonprofit, hospitals are all in the business of making money. And in New Jersey, most of our hospitals have made tremendous profits—even during the pandemic. One would think the primary focus for spending those profits would be staffing. Instead—and this has gone on for decades—nursing care, in fact all bedside care, is a line item in a budget cut to its lowest number to maximize profits. Hospital management, and the corporations that run hospitals, are too often focused on adding a new fountain in the lobby or paying for glossy advertisements instead of building up staff. They also spend millions on anti-union firms and lobbying efforts against safe staffing laws. Nurses know what safe staffing looks like, because they live it. But pleas for more staff go unmet because, and I'm quoting, "it's not in the budget."

Nurses and all healthcare workers were burned out and stressed out prior to the pandemic. Thus, when they were met with the deadly and horrific working conditions during and after the pandemic, they left hospitals in droves.

Last year HPAE contracted with Change Research to survey nurses in New Jersey who work in hospitals, and here is what we found:

- 30 percent are no longer hospital bedside nurses.
- Of the 70 percent who remain in our hospitals, 72 percent have recently considered leaving.
- And most troubling, of those with 0–5 years' experience, 95 percent report that they are likely to leave.

The No. 1 reason nurses leave is poor staffing. The second reason is burnout and stress, also mostly due to poor staffing.

I would assert that understaffing has driven our healthcare system to the brink of collapse. Frontline healthcare workers are leaving the bedside at an alarming rate because of untenable working conditions. In the HPAE 2022 survey:

- 83 percent of nurses said staffing levels put their license at risk.
- 77 percent said quality of care is getting progressively worse.

Every patient, every citizen, every legislator should be alarmed at these statistics.

Along with many other AFT affiliates and other healthcare unions, we decided to put our primary focus on this staffing crisis. The AFT staffing campaign is called

Code Red and has resulted in legislation in Connecticut and Oregon, among other states. Legislation in Pennsylvania, which mirrors the Oregon law and was championed by the Pennsylvania Association of Staff Nurses and Allied Professionals and the Service Employees International Union, has passed through the House and is making its way through the Senate. Healthcare unions are leading the way. We want to be next in New Jersey.

Why? Because we cannot retain nurses, and they will continue to migrate out of hospitals because staffing is poor. We do need to recruit into the profession, of course. But without addressing retention (that is, stopping the migration out of our hospitals), it's as if we are trying to fill a bucket full of holes with water. Without addressing the reasons for the migration, we will never stem the tide.

By now, we've all heard "Safe staffing saves lives." It is the mantra of every nurse in the country. But it is also truth. We have 20 years' worth of data, since California adopted a safe staffing law, that shows the benefits of adequate nurse-to-patient ratios. The data is clear: The staffing law in California decreased patient deaths; decreased negative outcomes for patients, like hospital-acquired infections, bed sores and medical errors; decreased injuries for nurses and patients; increased retention of nurses (saving hospitals millions in orientations); and was cost-effective for hospitals.

However, we have seen that hospitals will not be good actors on their own and agree to ratios—as you can see by the willingness of Robert Wood Johnson University Hospital to spend millions to refuse to settle this contract with its nurses. It has advertised the millions it has spent fighting the people it has referred to as "healthcare heroes." The hospital should be ashamed to reveal this to the public. But it does highlight the lengths our healthcare corporations are willing to go to fight against safe staffing. It also highlights why we need staffing laws.

Lobbying groups for corporations that own hospitals—both for-profit and nonprofit—continue to work hard to beat back legislative solutions to the staffing crisis. Lobbyist groups like the American Hospital Association and the New Jersey Hospital Association, as well as the hospitals themselves, spend millions in profits to fight back against safe staffing bills. It is the healthcare unions (that is, the frontline healthcare workers) across the country that are speaking up for nurses. And when we speak up for nurses, we speak up for patients.

We need laws to force hospitals and other healthcare institutions to staff safely. This strike is a test case for all hospitals. In my opinion, Robert Wood Johnson has failed the test. Ultimately, we can avoid more strikes like this one by passing legislation that mandates safe staffing. It is why HPAE, the Steelworker Union nurses, and every New Jersey union have been pushing the State Legislature to pass NJ-S304 in Trenton to mandate enforceable staffing ratios. It is the solution.

We are encouraged by the success of other states. We are encouraged by the crowd in this room. Chairman, with your help we will be able to say first California, then Oregon, now New Jersey.

Thank you, sir.

[SUMMARY STATEMENT OF DEBBIE WHITE]

I am Debbie White; I have been a nurse for 35 years. I am also president of Health Professionals and Allied Employees, which is the largest healthcare union in New Jersey, representing 14,000 healthcare professionals. HPAE is an affiliate of the AFT, the fastest-growing healthcare union in the country representing 200,000 healthcare professionals.

"Safe staffing saves lives." It is the mantra of every nurse in the country. But it is also the truth. We have 20 years' worth of data, since California adopted a safe staffing law, that shows the benefits of adequate nurse-to-patient ratios. The data is clear: The staffing law in California decreased patient deaths; decreased negative outcomes for patients, like hospital-acquired infections and bed sores; decreased injuries for nurses and patients; increased retention of nurses (saving hospitals millions in orientations); and was cost-effective for hospitals.

As an AFT vice president, I have talked in detail to my colleagues across the country and have heard the same concerns about staffing in Alaska, Connecticut, Montana, Ohio, Oregon, Pennsylvania and others. So along with many other AFT affiliates and other healthcare unions, we decided to put our primary focus on this staffing crisis. The AFT staffing campaign is called Code Red and has resulted in legislation in Connecticut and Oregon, among other states. Legislation in Pennsylvania, which mirrors the Oregon law and was championed by the Pennsylvania As-

sociation of Staff Nurses and Allied Professionals and the Service Employees International Union, has passed through the House and is making its way through the Senate. Healthcare unions are leading the way. We want to be next in New Jersey.

Hospital management, and the corporations that run hospitals, are too often focused on adding a new fountain in the lobby or paying for glossy advertisements instead of building up staff. They also spend millions on anti-union firms and lobbying efforts against safe staffing laws. It is the healthcare unions (that is, the frontline healthcare workers) across the country that are speaking up for nurses. And when we speak up for nurses, we speak up for patients.

Over the past few months, HPAE has stood with our heroes, the United Steelworker nurses of Robert Wood Johnson University Hospital, because we know that the experiences of those on this panel are also the stories of nurses throughout New Jersey and the Nation. We are encouraged by the success of other states. We are encouraged by the crowd in this room. Chairman, with your help we will be able to say first California, then Oregon, now New Jersey.

The CHAIR. Thank you, Ms. White. Our final witness is Dr. Patricia Pittman, Fitzhugh Mullan Professor of Health Workforce Equity and Director of the Mullan Institute for Health Workforce Equity at George Washington University. Dr. Pittman, thank you.

STATEMENT OF PATRICIA PITTMAN, PHD, FITZHUGH MULLAN PROFESSOR OF HEALTH WORKFORCE EQUITY, DIRECTOR, MULLAN INSTITUTE FOR HEALTH WORKFORCE EQUITY, DEPT. OF HEALTH POLICY AND MANAGEMENT MILKEN INSTITUTE SCHOOL OF PUBLIC HEALTH, THE GEORGE WASHINGTON UNIVERSITY WASHINGTON, DC

Dr. PITTMAN. Thank you, Chairman Sanders. I, in addition to directing the Mullan Institute for Health Workforce Equity at George Washington University, I also lead one of the nine HRSA supported health workforce research centers, and some of the research I will discuss was funded through this mechanism. Views expressed today, however, are entirely my own.

As other witnesses have indicated, there is growing recognition that the nursing crisis has been largely caused by attrition. Surveys and our own qualitative research identify the main reasons for these departures as understaffing, poor working conditions, and the corresponding fear of harming patients.

The experience of fearing and of witnessing this harm is resulting in moral injury, a form of trauma caused by not being able to provide the care they believe patients need and feeling that they are powerless to make change. Among the outcomes of this distress are depression and suicide.

Nurses commit suicide at twice the rate of the general population. Nurses' concerns about staffing have been borne out in over 20 years of research. Outcomes shown to be associated with low staffing levels include patient mortality, failure to rescue, hospital acquired pneumonia, respiratory failure, ulcers, falls, urinary tract infections, and patient satisfaction.

Our team has also showed that nursing assisted personnel staffing levels impact outcomes, specifically patient satisfaction. This is in part because without sufficient support, nurses workloads increase.

In other studies, we are looking at the effect on outcomes of overtime hours and agency nurse hours, as compared to regular staff nursing hours. We find that these two management strategies for

handling shortages do improve outcomes, specifically in this case, pressure—preventing pressure ulcers up to a point. But beyond that point, they get worse.

Over the past 5 years, we find over time ours were 178 percent above the estimated safe threshold in our sample. For agency hours, the mean was 211 percent beyond the threshold, corresponding to a 3.5 increase in pressure ulcers attributable to excess reliance on agency nurses.

This study can't tell us why this occurs, but we know from qualitative interviews that we have conducted, the travel nurses feel less empowered to speak up than regular staff when they experience unsafe staffing or dangerous assignments.

Why aren't hospitals hiring more regular nurses to stabilize the workforce? One might assume that hospitals with more resources would use some of that money to attract more nurses to regular positions, perhaps by paying them more.

Indeed, that was likely the assumption that policymakers made during the pandemic when they allocated provider relief funds to help hospitals make up for revenue losses and address the staffing crisis. Our research suggests this is not the case. In the year prior to the COVID pandemic, we found no relationship between hospital finance levels and staffing levels, either positive or negative.

We then looked at the four waves of COVID and we found that in wave two and three, there was actually an inverse relationship. This means that not only our hospitals that are traditionally better resourced, not using those funds for increased staffing, but additionally hospitals that had a higher influx of cash during the pandemic had lower staffing.

Our findings support the idea that something is amiss in the current hospital payments system. So how do we fix this? Research shows that mandatory thresholds will help ensure minimum levels.

We find that among the three state strategies used, mandating nurse to patient ratios, requiring that staffing committees include bedside nurses, and requiring public reporting of staffing levels, only the minimum ratio law was associated with increased staffing. The other two had no effect. The other approach is to enhance incentives for hospitals to hire more nurses.

Neither the hospital based—hospital value based program, or the hospital acquired conditions program, which include nurse sensitive patient safety measures, have been enough to offset the urge to cut costs by constraining staffing. But they could be reformed and combined with a mandatory approach.

One idea is to include both nurse staffing hours per patient day and nurse turnover rates in hospital compare. This could subsequently lead to the inclusion of these measures in the hospital value based payment program. Long term, the way we pay hospitals for nurses and support staff may need to change.

Rather than hiding labor in room and board, experts have been interested in exploring whether the actual nurses? hours per patient day could be an explicit component of the DRGs without driving prices up.

In closing, while other elements of the nurse practice environments also matter, fixing unsafe staffing in U.S. hospitals is an essential first step, one that would not only improve patient outcomes, but would contribute to the health and the retention of hundreds of thousands of nurses. Thank you.

[The prepared statement of Dr. Pittman follows.]

PREPARED STATEMENT OF PATRICIA PITTMAN

As Director of the Mullan Institute for Health Workforce Equity at the George Washington University School of Public Health, I appreciate the opportunity to speak with you today and share some of our research findings relating to nurse staffing and well-being. I will (1) review some of the background on nurse attrition and the so-called nursing shortage; (2) examine the evidence on why staffing is so important to both nursing and patient outcomes; (3) reflect on what may be driving unsafe staffing; and (4) discuss various policy approaches to addressing the problem of understaffing and moral injury.

Some of the research I will discuss was funded under a Health Workforce Research Center collaborative agreement with the Health Services Research Administration (HRSA), although the views expressed here are entirely my own.

The shortfall has been largely caused by attrition, not an insufficient pipeline

Registered nursing (RN) projections conducted by the Federal Government suggest that the current national nursing shortage is largely a result of licensed nurses dropping out of healthcare, rather than a problem of production. Some describe this as a shortage of nursing care, rather than of nurses (Trang 2023).

Nationally, the HRSA estimates that while they expect a shortage of about 79,000 full time nurses in 2025, by 2035 there could be a surplus of 16,000 nurses (2022). Projection methodologies are always controversial, and certainly national numbers obscure geographic variation. However, we do know that the pipeline is robust. Currently we graduate about 185,000 new nurses a year, close to the 195,000 we are estimated to need in the future, and that rate is expected to increase each year, as it has in the past.

The unanticipated problem in nurse supply has been the massive attrition of early career nurses. Bureau of Labor Statistics data show that more than 100,000 FTE left nursing in 2021 alone, the largest exodus of nurses in forty years of tracking the profession. Even more concerning, the majority of those leaving were under the age of 35 (Auerbach et.al. 2022). We know that most of the problem is concentrated in hospitals, where there was a 3.9 percent drop in employed nurses that year, while in other settings there was a slight increase (1.6 percent).

In 2022, some nurses returned to the bedside, but according surveys, RN hospital turnover is still above 22 percent (NSI 2023). Forty percent of all new hires left within a year of hiring in 2022, and almost 60 percent of those quitting had less than 2 years of service.

The primary reason for these departures, as reported by nurses, is that understaffing and poor working conditions are resulting in patient harm (Medvec et al.. 2023). The experience of witnessing this harm is resulting in moral injury, a form of trauma associated with being unable to provide the care they believe patients deserve, and the feeling that they are powerless to make changes (Pittman 2021). Among the effects of this phenomenon are depression and suicide. Nurses commit suicide at twice the rate of the general population (Davis et al.., 2021).

There is robust evidence that staffing levels affect patient outcomes

Nurses' concern that understaffing results in poor patient outcomes has been born out in over 20 years of rigorous research in the U.S. and around the world (Pittman 2021). Outcomes associated with low staffing levels include patient mortality and failure to rescue, hospital acquired pneumonia, unplanned extubation, respiratory failure and cardiac arrest in ICUs, ulcers, falls, urinary tract and surgical site infection, as well as longer restraint application duration, more medication errors, and longer times to diagnosis in the emergency room. Studies also reveal a significant association with longer lengths of stay, higher rates of 30-day patient readmission and lower patient satisfaction.

In a recent study, our team showed that nursing assistive personnel staffing levels also affect patient satisfaction, in part, no doubt, because without sufficient support staff, nurses must also do their jobs (Delhy, Dor, Pittman 2020).

Additionally, the configuration of nurse staffing matters. In a study we are just completing, we find the two most common hospital management strategies for handling short staff—increasing overtime hours and agency nurses—can help improve outcomes (in this case pressure ulcers) up to a point, but beyond a certain level, actually worsen outcomes. Pressure ulcers are entirely preventable, yet there is a prevalence of 2.5 million cases in the U.S., and about 60,000 of these patients die annually, as a result (Afzali Borojeny et al 2020). In our study, the mean overtime nurse hours per patient day was 178 percent over the estimated safe threshold for pressure ulcers, and for agency nurse hours it was 211 percent over the estimated safe threshold. This corresponded to a 3.5 percent increase in pressure ulcers during the last 5 years. Interviews we have conducted with travel nurses suggest that this may be a result feeling disempowered to speak up when they see unsafe or unethical practices, precisely because they are temporary.

Current incentives for safe staffing are insufficient

Labor economists have long identified the counter cyclical relationship of nurse attrition and unemployment (Buerhaus, Auerbach, Staiger 2009). Historically, poor working conditions and wages have led nurses to leave their jobs when their families are fully employed, 401Ks are flush, or maybe they can find work elsewhere. During recessions, however, many licensed nurses return to healthcare jobs. With the average cost of turnover for a bedside RN an estimated $52,35 today, hospitals understand the importance of improving retention (NSI 2022). The question then becomes, what can hospitals do to stabilize the workforce?

One might assume that hospitals with more financial resources would use some of that money to increase staffing, so fewer nurses would leave. Indeed, that is likely the assumption that policymakers made during the pandemic when they allocated provider relief funds to help hospitals make up for revenue losses and address the staffing crisis.

In a forthcoming study, however, my team found that not to be the case. We found that in the year prior to the Covid–19 pandemic there was no relationship between hospital finance levels, measured as days cash on hand, and nurse hours per patient day, either positive or negative. We then looked at the four waves of Covid–19 and found that in wave 2 and 3 there was an inverse relationship. In other words, an increase in days cash on hand was associated with a decline in nurse staffing. We were surprised by that, and so we applied a lag time analysis to account for the time needed to use new resources to hire, but found that our results still held. This means that not only are hospitals that are traditionally better resourced not using those funds for increased staffing, but that, even with an influx of cash, there is no evidence is was used for staffing.

This finding suggests that labor market dynamics do not entirely explain the problem of nurse attrition; it seems likely that the current hospital payment system has created a perverse incentive to understaff. Nurse and support staff labor are a significant portion of hospital budgets, and because their hours are not billed this has been the easiest place to control expenses. And despite the proven relationship with patient outcomes, value-based payment incentives tied to patient safety do not appear to be high enough to change the predominate financial calculations on staffing.

Combining mandatory and incentive-based policy solutions

Fixing the problem of unsafe staffing in this country may require a multi-tiered approach. Policy options will likely require both a mandatory component, for minimum thresholds, as well as economic incentives that reward those that go beyond that minimum.

Among the mandatory strategies, three general approaches have been used: (1) directly mandating nurse to patient ratios, (2) requiring that staffing committees include bedside nurses (in the hopes that their perspectives will be considered by hospital administrators), and (3) public reporting of staffing levels, (in the hopes that consumers will "vote with their feet" and put market pressure on hospitals). Just three states have used nurse to patient minimum ratios, California, Massachusetts in their intensive care units, and just recently Oregon. **We conducted a national study comparing these approaches over time and found that only the min-**

imum ratios laws were associated with increased staffing (Han, Barnow, Pittman, 2021).

Another mandatory approach that has gained attention recently, but has yet to be attempted, would be to require hospitals paid by Medicare to adhere to minimum nurse to patient ratios as a condition of participation (Aiken, Faigin 2022).

Incentive-based approaches may also have an important role in addressing unsafe staffing. While they are unlikely to solve the problem alone, in conjunction with mandatory thresholds they could motivate hospitals to go beyond the minimum. At the Federal level, this could begin with required public reporting of nurse staffing hours per patient day and turnover rates, and the inclusion of these measures in Hospital Compare (CMS a, 2023). Currently, Hospital Compare includes nurse sensitive patient outcome measures, but no process measures tracking nurse staffing or turnover. Requiring standardized reporting of staffing and turnover could also lead to their inclusion in the Hospital Value Based Payment Program (CMS b, 2023), a voluntary reward program. Long term, the main payment structure could be reformed. Scholars have been interested in exploring whether nurse labor hours could be incorporated into Diagnostic Related Groups (DRGs), hopefully without driving up costs to payers or consumers (Pittman et al 2021; Yakusheva & Rambur 2023).

In closing, I do want to acknowledge that while safe staffing will help reduce nurse turnover, other factors relating to nurse practice environments are also important. Studies show that improvements in team dynamics and greater trust in management are also key to reducing departures (Lasater et al 2021). A reduction of violence and harassment of health care workers is also imperative (CDC 2023).

From a policy perspective, however, fixing unsafe staffing in U.S. hospitals is both feasible and an essential first step. If achieved, it would not only improve patient outcomes, but also contribute to the retention of the hundreds of thousands of nurses that drop out of the workforce due to moral injury.

References

Afzali Borojeny L, Albatineh AN, Hasanpour Dehkordi A, Ghanei Gheshlagh R. The Incidence of Pressure Ulcers and its Associations in Different Wards of the Hospital: A Systematic Review and Meta-Analysis. Int J Prev Med. 2020 Oct 5;11:171. doi: 10.4103/ijpvm.IJPVM—182—19. PMID: 33312480; PMCID: PMC7716611

Aikin L, Faigin CM. Medicare can help fix the nurse shortage in hospitals. STAT. Feb. 8, 2022.*https://www.statnews.com/2022/02/08/Medicare-can-help-fix-the-nurse-shortage-in-hospitals/*

Auerbach D, Beurhaus PI, Donelan K, Staiger DO. A Worrisome Drop in The Number Of Young Nurses. Health Affairs Forefront. April 13, 2022. 10.1377/forefront.20220412.311784 *https://www.healthaffairs.org/do/10.1377/forefront.20220412.311784/*

Buerhaus PI, Auerbach DI, Staiger DO. The Recent Surge In Nurse Employment: Causes And Implications. Health Affairs. 28 (3) 2009. *https://doi.org/10.1377/hlthaff.28.4.w657*

CDC. Health Workers Report Harassment, Symptoms of Poor Mental Health, and Difficult Working Conditions: What Employers Can Do. Vital Signs Report. NIOSH. Oct. 24, 2023. *https://www.cdc.gov/media/releases/2023/s1024-Health-Worker-Mental-Health.html*

CMS (a).The Hospital Quality Initiative Public Reporting. 2023. *https://www.cms.gov/Medicare/quality/initiatives/hospital-quality-initiative/hospital—compare*

CMS (b). The Hospital Value-Based Purchasing (VBP) Program. 2023. *https://www.cms.gov/Medicare/quality/value-based-programs/hospital-purchasing*

Davis MA, Cher BAY, Friese CR, Bynum JPW. Association of U.S. nurse and physician occupation with risk of suicide. JAMA Psychiatry. 2021;78(6):651–658. doi:10.1001/jamapsychiatry.2021.0154.

Delhi R, Dor A, Pittman P. The Impact of Nursing Assistive Personnel on Patient Satisfaction Outcomes. A Production Function Approach. Medical Care Research and Review. 1 (12) 2020 *https://doi.org/*

Han X, Barnow B, Pittman P. Alternative Approaches to Ensuring Adequate Nurse Staffing: A Difference—in-Difference Evaluation of State Legislation on Hospital Nurse Staffing. Medical Care October 2021—Volume 59—Issue—p S463-S470 doi: 10.1097/

Health Services Resource Administration (HRSA). Nurse Workforce Projections, 2020–2035 November 2022. *https://bhw.hrsa.gov/sites/default/files/bureau-health-workforce/Nursing-Workforce—Projections-Factsheet.pdf*

NSI Nursing Solutions, Inc. 2023 NSI National Health Care Retention & RN Staffing Report. *https://www.nsinursingsolutions.com/Documents/Library/NSI—National—Health—Care—Retention—Report.pdf*

Lasater K, Aiken L, Sloane D, French R, Martin B, Alexander M, McHugh M. Patient outcomes and cost savings associated with hospital safe nurse staffing legislation: an observational study. BMJ Open. 2021;11(12):e052899

McHugh MD, Aiken LH, Windsor C, et al. Case for hospital nurse-to-patient ratio legislation in Queensland, Australia, hospitals: an observational study. BMJ Open 2020;10:e036264. doi: 10.1136/bmjopen–2019–036264

Medvec, BR, Marriott, DJ, Ridge L, Lee KA, Friese CR, Titler MG. Patterns and Correlates of Nurse Departures From the Health Care Workforce: Results From a statewide Survey. Medical Care 61(5):p 321–327, May 2023.—DOI: 10.1097/MLR.

Pittman, P. Evidence on Hospital Staffing and Outcomes: Implications for Washington State Mullan Institute for Health Workforce Equity White Paper. January 2022. *https://user-niv7hdi.cld.bz/Report—Evidence-on-Hospital-Staffing-Outcomes-Implications-for-Washington*

Pittman, P. Moral Injury: From Understanding to Action. AFT Health Care. Spring 2021. *https://www.aft.org/hc/spring2021/pittman*

Pittman P, Rambur B, Birch S, Chan GK, Cooke C, Cummins M, Leners C, Low LK, Meadows-Oliver M, Shattell M, Taylor C, Trautman D. Value-Based Payment: What Does It Mean for Nurses? Nurs Adm Q. 2021 Jul-Sep 01;45(3):179–186

Trang B. Is there a nursing shortage in the United States? Depends on whom you ask. STAT. Oct. 16, 2023. *https://www.statnews.com/2023/10/16/nursing-shortage-us-hospitals-unions/*

Yakusheva, O. & Rambur, B. How the hospital reimbursement model harms nurses—and what to do about it. Health Affairs Forefront. 2023 *https://www.healthaffairs.org/content/forefront/hospital—reimbursement-model-harms-nursing-quality-and-do*

The CHAIR. Let me begin the questioning with Ms. Danella. What I would appreciate is if you could put into human terms the fact that you have been a nurse for 28 years and you have seen a lot.

What are you and your fellow nurses experiencing because of the kind of inadequate nurse—patient ratios that we have in terms of what it does to nurses and what it does for your patients.

Talk about the emotional—we heard some discussion about what it means emotionally to see things happen that you feel badly about. So, from a human point of view, as a nurse for 28 years, chat about that for a moment, please.

Ms. DANELLA. I think what we look at is, No. 1, our colleagues, that support. When you go in and you look at the board and you see your patient assignment and it says you have six patients under your name, or four patients that are heavy patients, you look and you say, oh my god, what is my day going to be like? Am I going to be able to give that patient the care they need? I personally work on a stroke floor.

Many of our patients are unable to get out of bed, unable to speak, unable to feed themselves. They are full care patients. You say, what is my priority that day? Do I feed the patient with a peg tube that cannot feed themselves? Do I feed the patient that has—flaccid on one arm and cannot feed themselves?

You look, and you say, then do I have enough staff that is going to help me turn and reposition that patient as in our techs? No, wait, I have to go answer the phone because there is no unit clerk.

Where does my priority lie? That is what we have to look at. And the priority is not answering that phone, it is taking care of that patient that is at the bed so that they don't get into cube, they don't get respiratory because we haven't been able to turn and reposition them.

That they lay with a pressure ulcer because we haven't been able to change them.

You look, and you say, let me make my day. I can do it, and it is a struggle for me as a 28 year nurse. Imagine the new people that are coming in, and we are saying, go. Because I want to help them, but sometimes I can't because I might have a cluster, but I got to go off the floor because my patient needs a stat CAT scan and there is nobody to watch my other patients.

That is why I think safe staffing is being brought to the forefront. We work in a level one comprehensive stroke center, comprehensive cancer center. We work in, no offense to the other unions in the hospital or other staff, we work on one of the highest acuity populations in the hospital.

We deserve staffing. We deserve nurse ratios. We deserve ancillary staff. We deserve what we are asking for. It is not money. It is staffing. I hope I answered your question.

The CHAIR. You did. But let me just take that question down the line. Ms. Tanzi, did you want to respond on it? On a human level, what does the lack of adequate staffing mean to nurses personally, the quality care you want to provide, and how you feel about not being able in some cases to provide that care? Ms. Tanzi.

Ms. TANZI. I think the word that comes to mind for me, just as you were speaking, is anguish. Like you always have that feeling. It starts the night before your shift where you are just wondering what you are going to walk into.

If you are lucky enough to have a full set of nurses, your unit clerk and your nursing assistant may have pulled out or been pulled to another floor that needs them more. You know, you are in a one patient's area taking care of somebody, but somebody else is calling out for you. It is the juggling, the constant juggling.

Then you need a supply, and you go to the storeroom, and they don't have your supply. Now you have to call somebody. This is all time consuming stuff that you can't pawn off on somebody else. So, the anguish you feel, the dread, the anxiety that this causes every single day. You can't turn left without having something you need to do. Can't turn right without it. And there is no one to help. You ask your directors for help.

I am sorry, there is nobody to send you as an extra pair of hands. You can't ask your director because they are never on the floor. They are always at some type of very important meeting. There is never a person you can actually turn to for real help. So, we try to support each other.

We can't even go home and talk to our families because they don't even understand what we are talking about. This is very,

very specific. This kind of trauma is specific to us because we know what we suffer.

To this point, nurses have been afraid to talk about this to the general public because we don't want to alarm anybody that it is scary in the hospital. We don't want to raise fears to people that they might not be taking care of properly but have somebody whose mother get a bed sore, and it is a nurse's fault.

Have somebody have a heart attack or like Judith is talking about, somebody who can't feed themselves—you have to take your time. If they had a stroke, you have to be careful, you have to take your time. You don't want to rush them. They deserve to get their whole meal. But instead, you feel like you are shoving food in.

When you change somebody in the bed, you need two people. There is often not two people. So, you are doing it yourself. Rushing on one side of the bed, running to the other side of the bed. Having the patient try to hold themselves over on the bed so you can do their back.

Things that need to be done are not getting done. And we have not agreed to that. That is not what we signed up for. Try telling a new nurse—try telling a new nurse, hey, here is this great profession. Get a lot of debt when you go to college, then go someplace and work your ass off and not be appreciated. In fact, you can actually be abused.

How are we selling this? How are we potentiating more people coming into the field? With this culture, I can't imagine.

The CHAIR. Ms. Hagans, this obviously is a national issue. It is not a New Jersey or Vermont issue. You have been a nurse for many years. Why don't you give us your experience as well?

Ms. HAGANS. Well, first, you all know, more nurses means better patient care, okay. As a nurse, you walk in into that hospital from 6.45 a.m.. If you didn't have a cup of coffee from home, that was your first and last meal for the day, to beginning. And then, you are coming in to take a report.

Then you have to see your patients. I go in there knowing that I should be spending at least 5 minutes with the patient, but all I am doing is giving them the medication and run again. And we all need to know, every patient deserves that human touch where we have a conversation, newly diagnosis.

You walk in there, but you are being called in 50 million directions. Then now you start doing the blood pressure and you have to give the medication. It is 9.00 a.m., and then now you are being called to come into round because the doctors are saying where are you to make round, but you are in the room with the patients.

Then it is already 11.00 a.m., 12.00 p.m.. It is time to give your 2—[technical problems]—medication and 12.00 p.m. medication. You are yet as a nurse to sit there and take a break. We are talking about quality of care.

How do you expect me to deliver safe patient quality care when I don't even have a minute to run to the bathroom? Then, it is 2.00 p.m., then now you need to give your 2.00 p.m. medications.

Then we continuously—that is the reason we need safe staffing ratios in our Country. Imagine, in New York, we have the law, but

the state has failed us. They have not acknowledged and helped us. The only reason we have staffing ratios is through our contractual agreement.

What about the other hospital where they have no staff and no union to fight? What about those hospitals? 75 percent of nurses are not unionized in this country. So, let's do that math. How do we care for patients?

How do we expect to deliver quality care to our patients when we don't have enough nurse, patients to care for those patients? That is the reason we are here asking that we need to have the minimum safe staffing ratios in the country, across this Nation.

The CHAIR. Ms. White, you have been a nurse for many years as well. Why don't you jump in on that discussion.

[Technical problems.]

The CHAIR. Could you get that mic close to you and tell us what——

Ms. WHITE. I have been a nurse, a med surge nurse for 35 years. Who stays a med surge for 35 years? As such, I saw a lot of new nurses.

I was pretty much the mentor and the mama to everybody on the unit, as well as the union president and my local. But I have to say this, what does it look like in human terms?

My patients would say to me, I hate to bother you. I see you running up and down the hallway. Can I just ask you for one thing? And they try, they try to be patient, but I mean, how long can you be patient when a nurse says, I will be right back.

By the way, don't we all say that? I will be right back. How many hours later do we get back there because something else hijacks our time. Simple needs go unmet. Simple toileting needs, care, self-care needs. Patients don't get it. They don't get their meds in time. They don't get their dressing changes in time.

They don't get their teaching. I mean, how many times have I thought, I am going to teach this patient? I said to myself, that is a new diabetic. They have to know about diabetes. They have to understand what it is like to inject insulin.

I couldn't. I just didn't have the time because my time ran out. But the worst part about this is watching the new nurses that I have precepted and mentored start practice and every hour or so have to duck into the bathroom to cry because they never expected to be so overwhelmed in school, but this is the reality of our work.

Unless—hospitals are forced to staff—now, they will tell you they know what is appropriate to staff. They will. But they don't want to ask their staff, what do you think is appropriate? Because we could tell you. And the science shows that there is a certain nurse to patient ratio that is safe.

With these new nurses, we will retain them. We will keep them at the bedside. They won't be in the bathrooms crying. They will have mentors because the senior nurses who have the experience won't have exited the profession.

That is another problem. And honestly, the doctor walks in for 5 minutes, spouts some jargon, and leaves, and the patients look

at the nurse and says, I am not sure what he just said, can you explain it? And what do we say? I will be right back. It is necessary.

The CHAIR. Dr. Pittman, you have done studies on these issues. What does the lack of adequate staffing ratios mean to the health of the nurses, the well-being of nurses?

Dr. PITTMAN. Well, I think in qualitative terms we have been hearing it, obviously, but we do know that it is directly linked to depression.

Depression is directly linked to suicide. As I said before, nurses commit suicide at twice the rate of the general population. It leads to attrition, not just from the hospital job and churn, and we know that costs hospitals, I think this year they are saying $52,000 per turnover of nurses.

It is tremendous impact on the hospital itself. And as these things happen, even for those nurses who remain, unfortunately when you experience moral injury or burnout, for those who remain, it is—it becomes deactivating. You lose your compassion. You lose your ability to have hope for change.

That has a direct effect on patients who are looking to nurses as their sole source of care in hospitals. So, and that is why we are seeing I think the figures are actually way higher than one in five nurses leaving.

In hospitals, where most of the problem is, we are seeing 40 percent of nurses leave in their first year, and by the second year, 60 percent of nurses have left. It is a huge waste of human capital. And it is a tragedy for patients who are receiving services.

The CHAIR. You know, it is a funny thing. If we were in some poor country, didn't have money for health care, we might understand inadequate staffing. We are spending twice as much per capita on health care as any other nation on Earth.

I wanted to ask the panelists, what is your reaction, your emotional reaction, if would you like, to a hospital that apparently has $100 million available for traveling nurses, who are paid significantly higher wages than you are, who have nurse, patient ratios—better than what you are asking for, I gather.

A hospital chain that can provide its CEO with $17 million in compensation. What does that do to nurses morale when you hear those things? Ms. Danella, you want to start that off?

Ms. DANELLA. I believe, as nurses of an institution, many of us feel demoralized. As Carol had said, there was no respect for us as nurses. For what they have done for us for 85 days, they could have taken that money.

They are afraid if we win safe staffing, they would have to set the standard for all their other sites. We have taken that challenge on. We know that. Instead of saying we care about our nurses, they chose to make the travel nurses their priority, which is not right, as well as break our union.

I believe in the end that is the goal. They are willing to pay much, much money rather than respect our union, and all we are asking for, again, is a deal on safe staffing. I would ask them to come back to the table. If they called me right now, we would go

back to the table, make a proposal, answer our proposal, and get us back to work.

I think that is what we want. And again, this is a fight that we have taken on. We will continue and we need safe staffing, and the executives need to look at us as human beings and as the employees that built that hospital the way it is. It wasn't the travel nurses. We did it, and we deserve to go back in there with a fair contract.

The CHAIR. Hop in on that, Ms. Tanzi. What's the nurses? reaction? Apparently, there is enough money available, easily—$100 million bucks. What do you think?

Ms. TANZI. Well, disgusting comes to mind. Enraged comes to mind. The narrative at the very beginning, every time we would bring up something is, you are the highest paid nurses in New Jersey. Not true. Not even true.

They wanted to shame us and make us feel embarrassed that—as if we were asking for more money. That was never the case. They are so terrified of us being organized that they literally were taking pages out of union busting 101 and trying it, with the intimidation, with the fear, with the harassment.

That is the culture at Robert Wood Johnson. They are doing it to the people who are in there now. Our environmental service people, our technicians, saying that if you support these nurses, you will be fired.

That is a threat they make good on. That is a threat they make good. Our siblings at Clara Maass are trying to get a contract—[technical problems]—directions for staff and organizing. Congratulations, because together is what the hospitals is afraid of. We have how many unions in New Jersey. We need every hospital to be unionized. Somerset is getting ready to be next.

They literally are threatening them over there. Threatening them that if they participate with us, they communicate with us, that they will be penalized. That is a terrible way to go about business. That is saying you do not care about these people as people, you just want—shut up and go back to work.

That is the attitude they have with us. Shut up and go back to work. And that is not what we are doing. We are going to stand up and fight for what this is. We are not losing steam because this is too important. We didn't come out here to go back to a terrible contract.

If they come back with some stuff that isn't a good contract, it is going to get voted down again.

The CHAIR. Ms. Hagans, did you want to add something that discussion?

Ms. HAGANS. Clearly union busting. What they are doing is purely union busting. You have a CEO that makes over $17 million. Is putting profit over patients. And the reason they are doing it is union busting.

Management do not want the unions there because if they have enough money to have replacement workers, this is not about what is good for the patient, it is not about what is good for the community, it is purely union busting, putting profit over patient.

It is time that we have a law that will tell them, this cannot happen. We need to have the minimum safe staff integration across the country, so this doesn't ever happen again.

The CHAIR. Ms. White.

Ms. WHITE. I would say that any hospital—[technical problems]—need to go public with the statement that we spend the $102 million on replacement nurses while their nursing staff is walking a picket line should be ashamed of themselves.

Do they think—do they think this is a good look for the hospital? I can tell, I mean, I think it is a horrible look for the hospital and it shows what hospitals are willing to spend their profits on.

But I also think this is a test case in New Jersey. I think every hospital system is backing Barnabas in their actions right now because they are terrified. They know nurses aren't going to take this anymore.

They know this, and they see that these nurses, that all of you are not willing to stand for the status quo. That you want to see real change. I would pose this, if we had safe staffing laws, we wouldn't have nurses out on strike.

The CHAIR. The evidence—the purpose of this hearing is not, as some of our critics think, for me to get involved in labor management relations. It is to deal with the issue that we have been talking about.

We need strong staffing ratios so that we retain our nurses. That is what this is about. And of course, if nurses feel overworked, you correct me if I am wrong, because of understaffing, there is demoralization and people are leaving the profession.

We have the insane situation, and I want people to jump in and criticize me. I mean, disagree with me or not. But we have a nursing crisis. We desperately need more nurses, and nurses are walking out the door, all right.

At the end of the day, when you have nurses who have the time to take care of their patients, who feel good about their jobs, who are not going to leave the profession, at the end of the day everybody benefits, the hospital, the nurse, and the patient. All right, maybe I am going to go to Dr. Pittman again for this issue.

We are here to talk about retention. We are here to talk about a nursing crisis where hospitals don't have the nursing they need, and nurses are walking out the door. What will all of this do to make sure that we retain nurses, that we have good nurse, patient ratios? What impact will that have?

Dr. PITTMAN. Well, as I said before, I think it is an essential first step.

It is also important to recognize that there is more work to be done, even if you were to attain it, because there are issues around trust and management, issues around violence and harassment of nurses, issues around employee voice that also have to be addressed in conjunction. But I think that it is really difficult in the case of nursing to do anything until you resolve the issue of the short staffing.

I think one of the things that I think would be really important, and the reason that it is so important to understand the relationship between staffing and patient safety, is that consumers should be—the general population should be very concerned about this problem and physicians should be very concerned about this problem.

The organizations that express the voice of those, in particular those two sectors, but others as well, really do need to—bridges need to be constructed with them, so they understand the implications for them.

In particular, I think for this hospital that is on—been with so much labor distress now, it is really important to track the patient safety outcomes. See what is happening with the agency nurses and the outcomes.

The CHAIR. All right. Let me ask you this, and this is—I have got a hard time dealing with this one. I get involved as Chairman of the Committee and based on what I do with a lot of labor issues and we have been involved in many strikes, and most of the issues are pretty clear cut.

You have large multinational corporations, and they want to make zillions of profits. They want to pay their workers as little as possible. Workers are standing up with seeing that. The UAW, Teamsters, all of that is pretty understandable. Companies want more profits. Workers want more money. I understand that.

This is different. What is different about this is the function of a hospital is not to make huge sums of money. The function of a hospital, I assume, every American assumes, is to provide the best quality care it can to its patients, right?

I want you to help me on this one, because you have been sitting down and negotiating with the company—with the management. How—what is the management's explanation when you have 1,700 nurses, people who work with patients every single day, who are fighting primarily in order to do a better job to provide better care for their patients, which is presumably what the goal of the hospital is.

All right. What is their response? We don't want good quality care at the hospital? Is that their response? We think you who do all the work every day don't know what is going on the floor? Is that the response?

Help me out here because I really don't get it. If you are General Motors, if you are Stellantis, I get it. They want more money for their shareholders. I get that. But this one I don't get. What is their explanation as to why they don't want better quality care for their patients?

Ms. HAGANS. There is profit over patients. Look at the CEOs. Look at how much money they make. When you—when we have come in, when work short, the hospital still benefits on our back as nurses because they charge the same amount for the patients, if not more.

Therefore, if they could continue to use us with less in order to make more money, they will continue to do it. That is the reason we are here today testifying asking to have that minimum staffing

across this country. To have health equity for our communities. To continue to provide safe, patient care.

The CHAIR. Ms. Danella, Ms. Tanzi, you have been sitting, you have been negotiating for a very, very long time. What does the management say in response?

Ms. DANELLA. I was remaining silent for a reason. I was pretending I was the hospital at the table. You have to forgive me on that. It was purposely done. We have sat in the room hours and hours and hours with no response. It is a very simple concept. Enforceable safe staffing. There is not a lot on the table.

We get told we will get back to you. Sunday night, it is now Friday. They haven't gotten back to us yet. So again, we go back and forth over very—it is a very simple idea that has been complicated to the max. I, as the president of the hospital—not the hospital. Oh my god, pardon me.

I am sorry, president of the union can't even explain some of the concepts they want us to explain to our members. So therefore, it is simple terms, enforceable, safe staffing without sick call penalties.

A cushion, yes, but not a core deficit that is 18 percent. We need to get a contract. We need to get to work. First and foremost, we need a response from the hospital. And if we get a response, maybe we can work with something. We are not getting that response.

Ms. TANZI.

[Technical problems]—that this is really about dignity and respect for us and for our patients. The fact that we are asking for something that is scientifically proven, fundamentally important, that they are choosing to confuse it, do back moves, just to make it so that it is so untenable.

That the things that they are promoting—not promoting, proposing would make it impossible to be enforceable. So that is what arguing is not standing for. They are saying, cut that out and we will have a deal. They are gaslighting. That is a term I just learned during the strike.

Ms. DANELLA. I still don't understand it.

Ms. TANZI. It is unfathomable to me that they could still be saying we give—we have offered them safe staffing, but they just won't take it. Because that is a lie. That is a lie. And for them to just keep putting that same narrative out, it is, it is—I don't know but disgusting keeps coming to mind.

But it is just—it is—to us, it is insulting. Treat us with respect. Our union shows up every single time, stays as long as they need them to do, whatever crackhead hours they want to put them up to. Come in 5.00 p.m., stay till 2.00 a.m. They are there. They show up.

The disrespect is that they don't come with anything reasonable. It is not fair. And it is—and every contract that languishes on for over a year, what are we talking about here? Where is the respect? These are people who want to call us families in the next breath, but treat you like this while we are waiting.

The CHAIR. All right.

[Technical problems.]

Ms. TANZI. Some disgusting behaviors. We were told by our HR, the top of our H.R. to get over our COVID hangover. Manny Gonzalez had the nerve to say that while he worked from home. He was not where we were. So, these people who are hiding, hiding, can't look us in the eyes. They are negotiating in two separate rooms so that they don't have to look us in the eye. It is shameful.

The CHAIR. All right. We have covered a lot of ground. Are there any questions that I should have asked you that I did not ask you? Dr. Pittman.

Dr. PITTMAN. I do think it would be interesting to think about a GAO report on the effects of the way we pay hospitals for nurse labor and support staffing labor.

I think that is the root of their behavior and the Federal Government bears some responsibility for that. I am not in any way saying that this is an either, or I think that the laws are imperative to create a minimum threshold. But if we want hospitals—we want to encourage them to do the right thing, we need to use the dollars, taxpayer dollars that we pay them, to rethink how we are paying them.

I think there are lots of creative ideas and lots being written about that, and it would be worth—it would be worth a report.

Ms. TANZI. I have an idea too. We understood that the Federal Government and the State Government gave Robert Wood Johnson an enormous amount of money during COVID, which never trickled down.

This was, I understand it was a broad base of what it could be used for. It was never used for the workers, never used for the workers. I would love to know—oh, yes, no hazard pay. No hazard pay, Robert Wood Johnson.

What I want to know is where is all this money going and who has the power to say, show us where this money is going? They took our health care benefits away. They are self-insured. What was the purpose of that except for being cruel?

Their tactics are terrible, and it doesn't show any kind of concern for humans. So, what kind of place is making policies, making decisions that doesn't care about the fundamental basic rights of the humans?

The CHAIR. Are they just——

[Technical problems.]

The CHAIR. Let me just say this, that I would just, for the record, mention that to the best of my knowledge, this is a hospital system, Barnabas, that received $833 million from the Federal Government.

This is a hospital that has received $3.5 billion in revenue alone from Medicare and Medicaid. So, yes, the Federal Government has played a big role. Other questions that I did not ask? All right, let me just say this, and I say this to the management, I don't understand what you are doing.

I do not understand how you can go to your community and say you want to provide high quality care to your patients, and you

have the leading experts on quality care, 1,700 of them, saying you are not doing it.

I got to tell the management I understand that politicians are not held in high regard, but maybe CEOs of large corporations are held in even less high regard. But I would hope very much that the management at Robert Wood Johnson comes back to the table, they sit down and negotiate a reasonable contract, which must include adequate patient nurse ratios.

That instead of being at odds with their union, they work together to become a model for this country as to what a good hospital could be. Well, let me just conclude, our health care system is broken. There are so many problems. But today we are dealing with one of the major ones.

I just, on a personal note I want to thank the union here with their incredible courage. You are standing up—you are standing up not just yourselves. You are standing up for your patients, and that is an incredible, noble thing to do.

Thank you very much. And that is the end of our hearing, and I want to thank everybody and all of you who are here. I finally got to ask unanimous consent, which is not hard to get because I am the only Senator here, to enter into the record over 25 statements and documents from individuals and stakeholder groups related to the conversation today.

[The following information can be found on page 40 through 146 in Additional Material.]

The CHAIR. This Committee stands adjourned.

ADDITIONAL MATERIAL

My name is Christian Kane, and I'm an RN on strike with USW Local 4-200 from RWJ. I work on our surgical oncology floor, which very frequently has extremely high acuity patients.

On June 22nd's 7PM shift we had 30/31 beds filled and were staffed with 9 RNs and 1 CCT (our staffing budget allows for 10 RNs and 3 CCTs at this census). Of these 30 patients, we had 8 IMC patients, 2 patient's with hourly or every other hour perfusion checks (ENT flaps), and a 1:1 suicidal patient in hard wrist restraints, necessitating pulse checks every 15 minutes. Due to the acuity, we were forced to run 3 IMC nurses, leaving the other med/surg nurses with 5 very high acuity patients.

At the very beginning of the shift we had already had a patient that needed to be upgraded to IMC. As I was sending the short staffing form down, we had a rapid response due to a patient going into acute respiratory failure while still on high flow nasal cannula. This patient needed to be manually bagged for some time to stabilize their oxygen saturation. During this time, we had nobody able to answer call bells, as myself and our charge RN were helping run the rapid response, and our CCT was drawing labs for them. The patient needing to be upgraded was also being attended to, and it is almost certain that the Q15 wrist restraint checks were not being abided by due to being in a 5 patient assignment. We were lucky that the only incident this shift was the rapid response, as care was being delayed across the unit. We were even luckier that we had as much staff as we had, as it is not uncommon to have only 7 nurses, leading to assignments of 6 medsurg/telemetry patients, or 4 IMC patients, each of which could include patients that need to be upgraded mid shift and still being on our floor until they get an appropriate room booked elsewhere.

Of note, my unit had 40 staff RNs last fall. Of the 40, only 21 remain. On this particular shift, 4 RNs were travelers, 1 RN was from the float pool. Of the 4 staff RNs, only 2 of them had more than 3 years of experience.

Thank you,

Christian Kane, RN BSN

Hi Sally,

Unfortunately in my time at this hospital I have spent the majority of it understaffed I love my job and I love caring for my kids but I would love to be able to do it in a safe environment.

One night I always come in for a four hour shift and was put in charge. We had one critical patient and the nurse was orienting a new hire. At 11 o'clock I was expected to hand off charge to a nurse who is orienting a new hire for the float pool. During my four hour shift the critical patient continued to decompensate and the attending made the decision to start CVVHD. At this point I notified management. Management was not concerned with how staffing was being left. I stated to the manager I could probably stay for a few hours to help them get settled. Management did not seem to care one way or another. And I could not in good conscience walk away from the unit and leave one nurse with a full assignment, orienting, being in charge, and helping with CVVHD. I spoke with my coworkers and stated I can stay as long as I can and my four hour shift turned into 11 1/2 hours. We were able to make it through the night but the director's only concern in the morning was why she did not receive her morning text message stating how many beds were filled.

Another night I was in charge I had one patient who did not get the care that she needed because I had to spend so much time arguing with my attending. At the beginning of the shift I had one admission plan which was filled by 8 o'clock so then I had no room for admissions and I was the code bed. The attending decided to send another kid out to the floor but in the meantime a patient in the unit decompensated I needed to become a single patient because they were because they turned into a surgical emergency. The attending didn't see that she wanted to bring in a patient from another hospital for evaluation. The assessment in the labs did not make sense with one another and she wanted to look at the patient further. I stated to her I did not have a bed. She continue to hound me to escalate this to my leader ship. I escalated it to the in-house leader ship I was directed to have her escalate through the channels she was directed to. The patient landed up being transferred to the ER for evaluation but I had to argue for an hour and a half stating we need to protect the children in our care and our hospital first before taking a patient who is safely being cared for in another bed in another hospital. The children in our hospital deserve a place to go if they do compensate they deserve to know that there's a bed available and a safe place to go if they become a critical patient I should not have to be arguing for hours to keep a code bed available for kids who are in our care just so they can make another buck from the transport.

Sent from my iPhone

Time and time again, pediatric hematology and oncology unit has been left short staffed. The unit is a 10 bed unit. In this unit chemotherapy is administered, multiple intravenous antibiotics, and narcotics, as well as blood products. We manage patients that get very sick, such as sepsis, and their decline is so quick that without appropriate assessment and prompt identification delay in intervention could lead to death. End of life care is also a part of the job. Beyond the scope of medication administration, nurses on this unit are not just caring for the patient in the bed, but also caring for the family.

At minimum, two chemotherapy certified nurses should be on at all times. Many times that is not honored. On one occasion, one chemo certified nurse worked a shift in which she was expected to administer 7 patients chemotherapy overnight. Of those 7 patients, there were same chemotherapy administered to more than one patient. To be able to perform all these chemotherapy administrations, a chemotherapy certified nurse has to come to the bedside from already short staffed adult oncology units. Chemotherapy requires a two nurse check. Nurses are expected to check chemotherapy dosing against the protocols, confirm patient's BSA, check laboratory and this is all prior to checking the chemotherapy at the bedside with the identification and then administration. The slightest mistake can cost the life of a child. 7 patients receiving chemotherapy is unsafe by one nurse in one given shift.

Many of the tasks performed on our unit require two nurse checks. Blood product administration-two nurse check. Narcotics, such as Morphine or Dilaudid patient controlled analgesics, are commonly used in our patient population. An emergency occurs, minimally you need two people to get this started.

Many of the medications used on our unit can cause severe reactions. Close monitoring is necessary during and after administration.

With this being said, many times the night shift specifically is left with two nurses to care for the entire unit. Many of those shifts, we do not even have a patient care technician to work the unit because they are pulled to other units. We do not have a unit clerk to answer phones, call overhead emergencies if necessary, deal with the traffic of visitors. Many times we work with only two bodies the entire unit. Care is delayed, as much as you want to tend to everyone's needs at the time the patient is in need but it is humanly impossible. Pain management is delayed if nurses are caught up in time sensitive chemotherapy administration or emergencies. Families that seek education on their child's diagnosis, treatment plan, or prognosis many times don't get that education because the short staffing does not permit it. Sometimes families need to vent and be comforted and that is delayed because of short staffing.

We nurses are educated professionals. We voice many times at the beginning and during shifts to nursing supervision our "safety concerns" when left short staffed. We call our nursing director to advocate for us, explaining what is going on our unit that deems it unsafe. Many times are concerns are met with, "Well, the whole Children's Hospital is busy." Nurses are not robots. Many times we go through shifts just trying to perform all the necessary tasks for the shifts and we nurses go home with the guilt of what we couldn't do during that shift. Sometimes we have patients die and you not being "right back" to talk to them weighs heavy on you.

Beyond the walls of Robert Wood Johnson Barnabas, safe staffing has to be addressed state wide and nationally. The cost of healthcare cannot continue to increase, while the quality of care is poor.

Good evening

We were asked to give you a personal story of how the staff shortages have affected us personally. I would like to give my response confidentially.
I am a registered nurse in the operating room, OR, of the main OR in RWJBH hospital in New Brunswick, NJ. Some people may state the staff ratios don't really pertain to the OR but that would be incorrect. Although we see one patient per surgery, these shortages affect patient safety and our turnover times. To better understand I'll explain in easier terms.
The hospital is in support of the operating rooms. The operating room is the largest driver of revenue for the hospital. The pre op, PACUs, floors, etc are supportive care. Each relies on the other for total patient care. Each influences the other.
If there isn't enough staff on the floors, including non medical personnel, we can't turnover the surgical suites. We have had an exorbitant amount of wait times for PACU because of staff shortages then patients start their recovery in the OR.
If a hospital can fully staff with travelers for the strike they can fully staff for the everyday. Patient safety is our priority and should be the priority for the hospital.

Respectfully,
Jenn Cavanaugh, BSN, RN

Hi my name is Jen Trimmer I'm a nurse in the CVICU at RWJ. I wanted to share one of my many stories about unsafe staffing .

I was slotted to be the charge nurse for the night shift. The charge nurse is not supposed to have patients . The job of the charge nurse is to circulate through the unit , assist nurses who's patients aren't doing well , and fill out the multiple audit forms. This particular night I had a patient . This patient was one of our heart transplants who was waiting for his heart . He had a device called an impella . It was a very busy night , we had 2 emergent open chest situations , and 2 others patients not doing well . I was helping 4 nurses with critical situations , and my patient was basically alone . I was on the other end of the unit for several hours . He had been calling to use the bathroom : he had his call bell on but there was no one available to help him . He was frustrated , upset and alone . I did my best to help him thought out the night .

Good Evening,

My name is Kimberly Haspel and I am a nurse who works in the cardiac cath lab. While the general consensus is that safe staffing ratios do not affect procedural areas, I disagree. Because we are highly trained in our department, when we have call outs, there is no one to help cover and we often have to work short staffed. Nurses are constantly pulled from our holding area where we recover patients leaving them understaffed because the procedural rooms cannot be left short. Unfilled positions and call outs not only leave us short staffed, they also impact our ability to be educated and oriented appropriately to new procedures and equipment. This often leads to minimal training and non proficiency in preforming procedures. Nurses are being pushed into doing procedures that they are not competent to perform, because there is no one else to do them. Others are begged to stay to do overtime and cover so that our coworkers feel comfortable.

I was personally sent to cover a procedure in the OR that I was never trained on, never oriented to, and had never seen before. A coworker recently left our department who was trained in these procedures, but not all others were properly trained prior to her leaving. I called my boss to ask for help because I hadn't done one of these procedures before. His response was, oh, I thought you had done one. There was no one to send to help me so I was forced to learn on my own while managing through the procedure. There have been additional times when procedures have been done that coworkers were not appropriately trained for. After this incident, I knew to look at our schedule IN ADVANCE and advocate for education of our staff prior to these procedure. There was another incident in which I let my boss know I hadn't done a valve replacement procedure with a type of heart valve that RWJUH was trialing as part of a clinical trial. After asking for several days, I received information from the valve company reps minutes before the procedure began. I have continued to ask management to set up in-serving and education, to date there have been a few of us in the structural heart program that have yet to receive education in the Tendyne valve replacement, Jenavalve , and portico valves to name a few.

In order to provide the care that is appropriate and safe for my patients, I have spent my own personal time researching and educating myself about these procedures.

Thank you for allowing me to share my experiences.

Be Well,
Kimberly Haspel
Sent from my iPhone

Ms. Smith,

I do not have an incident story to report, thanks to my nursing team going above and beyond, foregoing lunch and bathroom breaks, leaving hours after the shift ends. But I did write a little something about the "well nothing happened" culture there. Not sure if this helps your cause ..

"I treat each and every one of my patients as if they are my own family members. Most shifts we are short staffed and when we are not short staffed we are asked to send nurses home based on some corporate budget which does not account for us being a trauma ER or our extremely high patient acuity. When we complain about unsafe staffing we are told "well nothing happened to any patients." This is the response to my hard earned nursing license on the line, this is the response to your family member seeking emergency medical care.

"Nothing happened" because we are the best damn team of pediatric ER nurses, techs and doctors around and look after one another. My coworkers and I work our butts off as a team to make sure "nothing happens", often forgoing our mealtimes, bathroom breaks and 5 minute breather breaks. Clocking out way past our shift, only to come in 9 hours later and do it all over again.

I have seen life begin, life end and everything in between through those doors. When my patients and families come to me, it is often on their worst days. I want to make sure I am giving them the most outstanding attention and care that I can - I cannot do that without safe staffing. The ER doors never close, we need to be more than ready for whatever emergency is coming thru those doors and it starts with safe staffing ratios. I love what I do, I love where I do it and who I do it with. I just want to be able to do it safely."

I work in the PSDS unit- and many times we have patients sitting in the unit for 5, 6, or even 10hrs after their surgeries because the floors are too busy or don't have enough staff to take report. Patients families have been upset because it's now 1am or 3 am and they want to go to sleep.
This is an ongoing problem.
Sent from my iPhone

I work in the NICU. One day I was assigned a very unstable 25 weeks infant. On the night shift this baby was 1:1 ratio, meaning the nurse taking care of him had only this baby as he was so unstable. When I arrived at 7am he was placed in a 2 baby assignment as we were short. I was also placed on covering for admission, meaning once an admission happened I was to be placed on 3:1 meaning 3 NICU babies vs the 1:1 the night shift nurse had. By 8am, literally an hour after start of shift I was told I am already covering that 3rd baby! That 3rd baby was no where near my other 2 babies making covering unsafe. I left my unstable baby to start assessment of 2nd baby when I heard 1st baby alarming. Before I could secure 2nd baby the attending had run in to address 1st unstable baby who really needed intense care. Baby oxygen levels and heart rate dropped to dangerous levels requiring intervention by respiratory therapist. Before I could even finish assessment of 2nd baby the attending came to me and said you have 1 baby. I said No Dr. Ten, I have 3. He said not any more. I just wrote an order that this unstable baby is now a 1:1 which should have been what he should have been from the start of my shift. Unbelievable how this hospital will put patients in danger in the name of the almighty dollar! There are so many stories I can tell but limited to just 1.

Thank you

Linda

Hello Ms. Smith,
I have been an nurse for 39 years, 35 of them here at RWJBH. I am one of the 1700 nurses on strike for safe staffing.
My husband was diagnosed with leukemia 21 years ago and after his bone marrow transplant his immune system never recovered. He has received and infusion of IVIG every month for the last 18 years,. Aside from the occasional setbacks, this treatment has kept him safe and healthy.
Two years ago, he was sent from his doctor's office to the ED at RWJ New Brunswick with concerns for sepsis versus a CNS relapse of his leukemia. We did not see a nurse for 1 hour and 45 minutes. His lab work, including a blood culture, was sent at the 2 hour mark and his antibiotic was hung at the 3 hour mark. (The benchmark for a code sepsis is blood work and first antibiotic within 1 hour) The nurse who came to draw the lab work and start the IV introduced herself, but told us that she was not our nurse...she was just helping out her coworker. When our nurse came with the antibiotic, he apologized for the delay. He told me that he had my husband and 21 other patients.
Mary Lynn Dupuis BSN, RN, CCRN
Neonatal and Pediatric Transport Team

Dear Sally Smith,

I hope this message finds you well. I am writing to provide a firsthand account of the severe consequences of our overworked nurses in the healthcare system. My roommate recently experienced a distressing situation that highlights the urgent need for change.

A few weeks ago, my roommate fell seriously ill and had to rush to the emergency room due to a kidney infection and E-coli. However, her visit to the ER turned into a harrowing ordeal. Staffing shortages left the hospital with too few nurses to attend to the overwhelming number of patients.

My roommate, in excruciating pain and discomfort, found herself sitting in the ER for an agonizing 3 hours straight, continuously throwing up, with no one available to provide her with the care she desperately needed. The situation was not only distressing but also potentially life-threatening.

This incident exemplifies the dire state of healthcare due to staffing shortages. Patients are left waiting, suffering, and sometimes in critical condition, as there aren't enough nurses to provide timely and adequate care. This issue not only impacts patients but also places tremendous stress on our dedicated healthcare professionals, who are overworked and stretched to their limits.

I urge everyone to take immediate action to address this crisis. The well-being and lives of countless individuals are at stake, and our healthcare system urgently requires the support it needs to ensure that no one has to endure the kind of ordeal my roommate went through.

Thank you for your dedication to this cause, and for providing a platform for individuals like me to share their experiences. I hope that this testimony helps shed light on the critical need for reform in our healthcare system.

Sincerely,

Nicole

Honorable members of the Senate Committee, My name is Tatum Torres, and I have had the privilege of serving as a nurse for a decade. I have dedicated my entire career to the Robert Wood Johnson University Hospital, with experience in surgical oncology, Cardiothoracic ICU, and my current role in the Post-Anesthesia Care Unit (PACU). While my department does not face specific nurse-to-patient ratio issues, the pervasive understaffing in the hospital affects every department, leading to significant ramifications for both the PACU and the Operating Room (OR). I wish to share a personal experience that deeply impacted me, to the point where I left work that evening with tears in my eyes. My scheduled shift on that particular day was from 8 am to 8 pm. I was tasked with transferring a patient to the 4W med-surg floor. Understanding the change of shift timing throughout the hospital, which occurs from 7 am to 7 pm, I made the conscientious choice to wait until 7:45 pm to allow the nurses on 4W to receive their shift change report. My first attempt at making contact was met with a ringing phone and no response. I tried again 15 minutes later, but the outcome was the same – the phone rang incessantly with no one answering. Recognizing the busyness of the floor, I exercised patience and waited until 8:30 pm to call again. Sadly, the result remained unchanged – the phone continued to ring without any response. At this point, I became increasingly concerned. I requested another nurse to watch over my patient and decided to go to the unit in person, suspecting there might be a technical issue or a valid reason for the lack of response. As the elevator doors opened on the 4W floor, I was greeted by a cacophony of call bells, telemetry alarms, and bed alarms, yet there was not a single nurse in sight. The situation was beyond overwhelming. The nurses' station mirrored the chaos, with phones incessantly ringing and no secretary or nurse to attend to them. There was no one in the hallway, no techs, no one. I felt as if I had entered a different reality, a place where the expected presence of medical professionals had suddenly vanished. I didn't need to ask where the nurses were; I knew they were attending to their patients amidst the chaos. By now, it was a few minutes before 9 pm, and I was searching for the assignment board to identify the nurse assigned to my patient. To my surprise, the charge nurse, whom I believe was named Cynthia, was listed with three patients under her care. It was shocking to see a charge nurse, with a full administrative role, burdened with a "full load" of patients. Although I had never worked on 4W, it was notorious for having some of the heaviest patient cases, requiring intensive care even for the most basic needs. My assigned nurse finally appeared, a kind and caring individual. I informed her that I would delay the patient transfer as long as possible because she appeared to be dealing with a heavy workload. I inquired about the whereabouts of the nursing staff, and she explained that this situation was unfortunately nothing new; they were constantly striving to provide care with the limited resources at their disposal. My heart ached for her and my fellow nurses who had come to accept such conditions as the norm. The situation further unfolded as I provided report on the patient I was transferring to her. Just as we were about to discuss the patient, another bed alarm rang. We walked to the room together, and what we encountered was distressing. A patient had left her bed and was covered from neck to feet in feces. She was standing at the side of the bed, attempting to get out, clearly unsteady on her feet, and, despite a touch of confusion, was lucid enough to express her desire not to return to her soiled bed. The nurse assured me that she would handle it, but I couldn't simply leave. Together, we changed the bed, cleaned the patient, and restored her dignity. Throughout the process, the patient expressed her gratitude, though we repeatedly assured her that no thanks were necessary.

Leaving that unit, almost an hour since when I arrived I carried with me a heavy heart, knowing that fellow nurses within the same organization were working under such challenging conditions. I knew if we arrived just even a minute later, we may have found a patient on the floor with potentially life threatening head injury. The patients should not be subjected to these circumstances simply because the unit they got assigned to was short staffed. Patient safety, staff well-being, and the quality of care we provide must be a collective priority and despite the pushback from administration, I am certain they would never want their loved one to feel such humiliation.

Thank you for allowing me to share this experience. It is my hope that we can work together to address these issues and ensure the best possible care for our patients.

Earlier this year I was in charge in the Pediatric Same Day Surgery and was not supposed to have a patient assignment. Due to short staffing I had to take patients immediately and at one point I had two pre-op patients and an infusion patient in the pre-op area and two patients in the recovery area. The patients in the recovery area are initially intensive care patients and much of the time I was in a totally different area.

Another area that should be looked at is the long term short staffing in the Pediatric Intensive Care Unit. This unit has had enormous staff turn over and recently had been staffed mostly by travelers. The Peds Recovery Area suffered from this shortage when the PICU could not recover patients who just had surgery and were booked into the PICU, due to short staffing. This happened on a weekly basis and sometimes more than once per day.
Thomas Rooney MSN RN CCRN

Sally,

There are so many stories I could give, but what sticks out the most is:

I work in the Cardiac Cath Lab. I was in charge pretty much every shift for the better of 7 years. 95% of the days we were short staffed. Everyday management was aware and yet continued to create a schedule for procedures that is unattainable with the staff we have. Everyday at a 3pm huddle, where the following day was discussed, they stated they were aware they are "setting us up to fail" as a unit. But head of the administration "don't care".

This led to continuous mandatory over time, continuous rushing of patients and procedures, not allowing each patient to get the care and attention they need/deserve. Things always get missed because of the non stop rushing of the Nursing staff, and then the nurses are the ones blamed and getting in trouble all the whole administration knows full well that they set us up to fail knowing it was not humanely possible to get the procedures done during business hours/with amounts of staff we had.

Most days standard of care was ignored just to meet our "numbers". Standard of care is 3 staff per procedure room, many days that dropped to 2 staff just to get more procedures done. This also goes against national standards and pur own hospital policy that deals with patients under sedation. So most days our own management allowed unsafe practices to happen to patients willingly. And any time staff complained or reported this being unsafe, they are retaliated against and or forced to remain silent.

The more you stand up for patient safety, the less you are liled and the more you are targeted at RWJ.

Thank you for your support
Tiffany Fenton

Sally,

A specific shift in mind...

12 bed recovery area in the Cardiac Cath Lab. Usually staffed with 3-4 nurses. Due to short staffing it was only 2 of is this day. Management refused to slow down procedures to adequately staff the recovery area. In the recovery area normal patient load was 3-4 patients depe ding on acuity amd type of procedure they had.

This night it was 12 patients for 2 nurses. 4 of those patients were high acquity/post general anesthesia. Multiple times management was made aware that it was unsafe. Nothing changed.

One patient ended up crapping out post procedure, started vomiting bright blood. Both myself and the other nurse assigned were struggling ti take care of this patient. Management made aware, did nothing to help us. I begged our director at the time to please not out anymore procedures in, so we could have more staff in the recovery area, she refused. She then screamed at me and called me a liar in regards to the patient vomiting blood. That patient ended up needing cpr. That patient ended up gping back in for an emergency. The other 11 patients had no staff to tend to then for almost 2 hrs in the recovery area.

Management never came to help us or follow up. They went home fully aware of the issues. This is a normal occurrence where they leave fully aware of the disaster at hand.

I was later treated very poorly by that director for speaking out in the name of patient safety. She did her best to try and fire me after this incident as well.

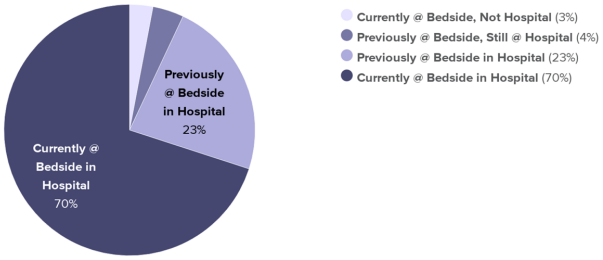
Thank you.
Tiffany Fenton

August 22, 2022

TO: **HPAE New Jersey**
FROM: **Nancy Zdunkewicz, Change Research**
RE: **Results of Survey of Current & Recent Bedside Nurses in NJ Hospitals**

On behalf of HPAE, Change Research surveyed 512 current and recent nurses in primarily bedside facing roles in New Jersey hospitals from August 10-16th, 2022. This quantitative research concludes the multi-phase research program for HPAE in its efforts to better understand the experiences, challenges, and needs of hospital nurses in these unprecedented times.[1] Of the nurses surveyed, 70% are currently working at the bedside in hospital settings, 3% are currently at the bedside but recently left (within the past three years) hospital settings, 4% still work in a hospital setting but are no longer primarily at the bedside, and 23% were at the bedside in a hospital setting within the past three years but are no longer at the bedside or in a hospital. Fully 30% are no longer in bedside facing roles in hospitals.

Current bedside / hospital status:

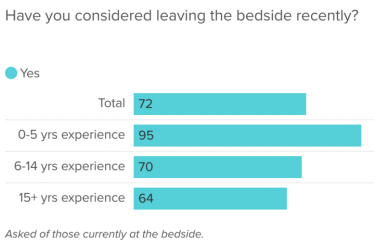


Unless otherwise specified, the results presented represent the responses of all survey respondents. Below are the most critical survey findings.

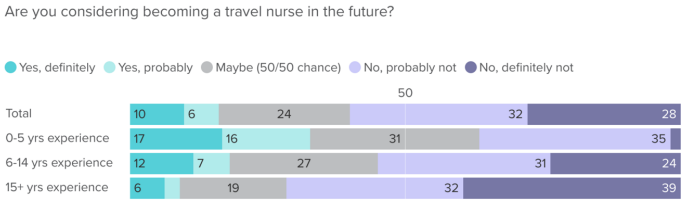
[1] On behalf of HPAE, Change Research surveyed 512 current and recent nurses or nursing assistants in primarily bedside-facing roles in New Jersey hospitals from August 10-16, 2022. For the purposes of this survey, nurses are defined as nurses or nursing assistants only, excluding nurse managers and others, and being "recently" at the bedside or in a hospital setting means within the past three years. Respondents were recruited into an online survey instrument via targeted online advertisements to HPAE's membership, to likely nurses on the voter-file, and to those interested in 'nursing' on Facebook, and via SMS to a voterfile sample of likely nurses on file. Respondents were weighted to counts provided by New Jersey Collaborating Center for Nursing.

The crisis in staffing levels

Of those nurses currently at the bedside, **72% have considered leaving the bedside recently.** Newer nurses are the most likely to be considering leaving the bedside (95% of those with 5 years of experience or less). This finding validates a concern of experienced nurses in HPAE's focus groups that there may be too few younger nurses to fill the ranks as they retire and their observation that younger nurses are less tolerant of a lack of work-life balance. Stunningly, **40% of nurses at the bedside say there is at least a 50% chance that they will become a travel nurse in the future** – 16% definitely/probably and 24% maybe (50/50 chance). The less experienced nurses are the most likely to say that they are considering this option.[2]



Asked of those currently at the bedside.



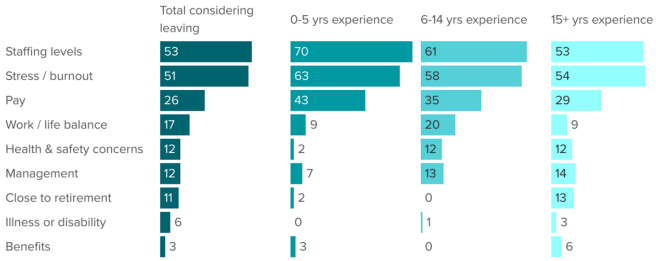
Asked of those currently at the bedside who are not travel nurses.

When asked to indicate the top two reasons why they might leave the bedside from a list of nine possible reasons, **the top two reasons cited by over half of those considering leaving the bedside were staffing levels (53%) and stress/burnout (51%)**. In the second tier of reasons, with roughly one-quarter selecting it as a factor in their decision, is compensation (26%). Newer nurses were considerably more likely to consider their pay a top reason for leaving.

---

[2] Our respondents included 22 bedside nurses in hospital settting who are currently travel nurses. When asked for the top two main reasons why they decided to become a travel nurse, the top reason provided was higher pay (72%) while roughly one-in-three selected other options like shorter commitments (35%), flexibility of schedule (30%), travel opportunities (28%) or something else (32%).

Which TWO of the following are most important factors in your decision to leave the bedside?



Asked of those who have considered leaving the bedside recently.

Speaking of stress levels, we asked those at the bedside in hospitals to rate their stress levels on a scale of 0 to 10, where zero means not stressed at all and 10 means severely stressed, and half rated themselves as extremely stressed (an 8, 9 or 10). Those who were currently considering leaving the bedside were particularly stressed, with 60% rating their stress level as very high.

Eighty-three percent of the nurses surveyed reported that nurses at New Jersey hospitals earn too little. Over 60% of all of the nurses surveyed reported they did not receive any sort of bonus in the past three years and less than one-third (31%) received hazard pay in the past three years to compensate them for the extraordinary risks and demands of the COVID-19 pandemic. A 62% majority of hospital nurses currently at the bedside also rate negatively their retirement benefits and 39% report that, despite working in the healthcare industry, their healthcare benefits are inadequate.

Roughly half of the nurses surveyed also rate negatively conditions related to their own safety in the workplace: 48% of hospital nurses currently at the bedside reported experiencing physical abuse in the past few years and 53% rate their protections from violence and abuse negatively; 51% rated their access to mental health resources negatively; even 46% said the protection their employers provided from COVID-19 during 2020 was insufficient.

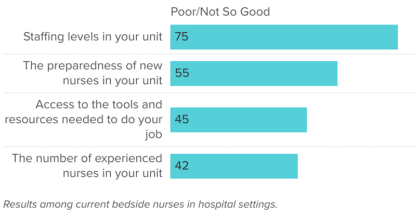
The crisis in patient care

Our qualitative research phase set off alarm bells about the quality of patient care. Nurses described staffing situations that were setting them up for failure and a resulting decline in the quality of care that they were able to provide to patients. Though a majority of respondents rated

positively the quality of care that New Jersey hospitals are able to provide, **a disturbingly high 43% of nurses at the bedside in state hospitals rated the quality of care provided negatively.**

There are several factors that impact patient safety and the quality of care that nurses provide – from staffing levels and access to tools to the preparedness and experience level of nurses. **Three-in-four bedside nurses in hospitals in New Jersey rate the staffing levels in their units as poor or not good.** A 55% majority also rate negatively the preparedness of the new nurses in their unit. Over 40% of these nurses also rated negatively the number of experienced nurses in their unit as well as their access to the tools and resources to do their jobs.

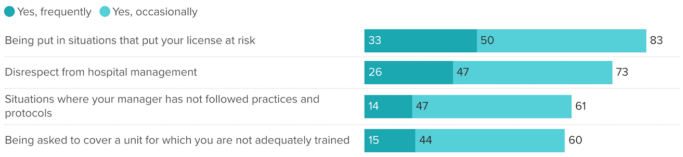
Ratings on issues related to care quality & patient safety:



Results among current bedside nurses in hospital settings.

A whopping 83% of nurses said that over the past few years they were at least occasionally put in situations that put their license at risk with one-third reporting this happened frequently. Almost three-in-four nurses surveyed (73%) report being disrespected by hospital management in the past few years with 26% saying this was a frequent occurrence. A 61% majority report situations where their manager did not follow practices and protocols and 60% report being asked to cover units for which they were not adequately trained.

Did you experience any of the following in your workplace in the past few years?



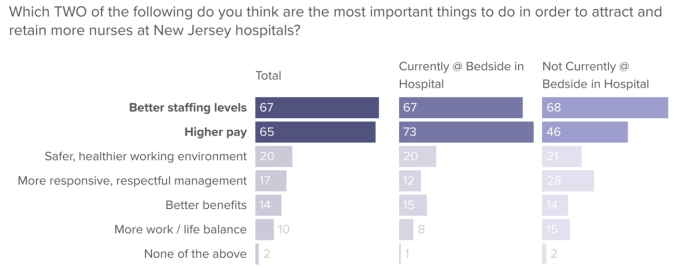
Managers failing to follow practices and protocols and putting nurses on units without adequate training were the two experiences that those who recently left the hospital bedside reported at a considerably higher rate than those who were still there: 56% of those at the bedside in hospitals reported being put in situations where their manager didn't follow practices or protocols in the

past years versus 73% for those no longer at the bedside in hospitals; 54% of those at the bedside in hospitals reported being asked to cover a unit for which they lacked training in the past years versus 72% for those no longer at the bedside in hospitals.

The result – 77% of nurses say that the quality of care hospitals are able to provide is *getting worse* and 75% believe that hospitals are getting *less safe*. This was evident to nurses of all levels of experience at the bedside.

Attracting and retaining more nurses

Fully 91% of nurses believe that the issues with nurse retention won't go away unless hospitals take action, and 83% say that "*the issues with nurse retention have existed for a while and the pandemic made them even worse; they won't go away unless hospitals take action*." **There are two things that these nurses consider critical to attracting and retaining more nurses at New Jersey hospitals: better staffing levels and higher pay.** These two actions were selected by two-thirds of those surveyed when asked to pick the two things they think would help the most to attract and retrain more nurses from a list of six possible actions.

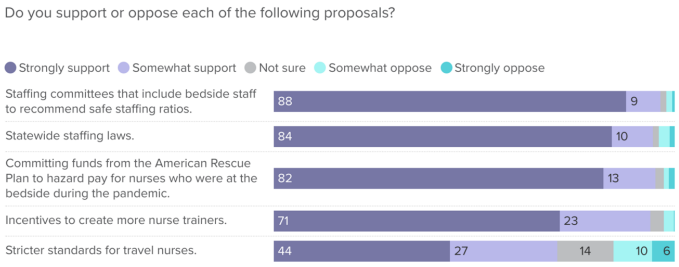


Notably, higher pay was even more important to those currently at the bedside in hospital settings (73%) compared to the thirty percent no longer in such roles (only 46%). Those no longer in such roles are more likely to consider responsive, respectful management important (28% versus 12% among those currently in hospitals at the bedside).

Nurses are also unequivocal that these are things that hospitals can afford to do: 97% say that they can afford to hire more nurses and 93% say that they can afford to pay nurses higher wages. While 83% believe that nurses at New Jersey hospitals make too little, 89% believe that CEOs and executives of New Jersey hospitals earn too much.

Legislative action

An 84% majority of nurses surveyed believe that the state and federal governments provide local hospitals with too little support. What does support look like? **There is an overwhelming desire for proposals that would improve the staffing crisis, especially for rules around staffing.** All of the proposals tested earned support from a majority of those surveyed, but the most popular proposals include staffing committees that include bedside staff when establishing staffing ratios, statewide staffing laws, and hazard pay for nurses at the bedside during the pandemic paid for by the American Rescue Plan funds.



The most divisive proposal is one to establish stricter standards for travel nurses. This has the support of 71% of nurses surveyed and 44% strongly support it, but that is still considerably less than other proposals, perhaps because the nature of the standards is not specified. That being said, 40% of nurses are actively considering entering travel nursing, in part because they believe that travel nurses are earning what nurses deserve (54%), and there is a general reluctance to blame travel nurses for the untenable situation that hospital managers have created.

Unions will be critical to making these and other changes. Of those surveyed, 36% reported being a current or retired member of a union, and another 29% expressed a desire to join one in the future.

* * * * *

AFSCME
We Make America Happen

October 24, 2023

The Honorable Bernie Sanders
Chairman
Committee on Health, Education, Labor and Pensions
United States Senate
Washington, D.C. 20510

The Honorable Bill Cassidy
Ranking Member
Committee on Health, Education, Labor and and Pensions
United States Senate
Washington, D.C. 20510

Dear Chairman Sanders and Ranking Member Cassidy:

On behalf of the 1.4 million members of the American Federation of State, County and Municipal Employees (AFSCME), I write to request that this letter be included in the record for the October 27, 2023, hearing on "Overworked and Undervalued: Is the Severe Hospital Staffing Crisis Endangering the Well-Being of Patients and Nurses?"

Nursing Staffing Crisis

AFSCME represents over 60,000 nurses, so we understand the vital role that nurses play in delivering quality health care to families when they need it the most. Yet, the nursing profession faces a myriad of challenges, many of which predate the COVID-19 pandemic. The nurse staffing crisis has reached catastrophic proportions putting the lives of patients at risk and driving nurses to leave the profession in record numbers because of unreasonable workloads. It is urgent that Congress work with all the stakeholders, including hospitals, workers and patients to identify and implement solutions to address this burgeoning crisis.

According to the report, "The Dangerous Impact of the Nursing Shortage," published by the United Nurses Association of California, Union of Health Care Professionals, the nation's nurse turnover rate has reached dangerous levels. The crisis is driven by three interconnected factors: The aging of the baby boomer population; the stress and burnout experienced by bedside nurses as their workloads increase; and the lack of nursing school educators and new graduate nursing programs needed to build the new generation of nurses.

Nurses are the backbone of our health care system, yet they often do not have the staffing or the resources needed to care for their patients effectively and safely. Poor staffing is the core reason that nurses are leaving the profession. According to National Council of State Boards of Nursing (NCSBN), over 100,000 nurses left the workforce during the pandemic due to stress, burnout and an unprecedented increase in workloads. The exodus of nurses during the pandemic is particularly troubling as the health care system is already overburdened and could experience a shortage of between 200,000 and 450,000 nurses by as soon as 2025. Such a gap represents a shortfall of between 10 and 20 percent of the nurses needed to care for patients across our health care system. To meet this demand, we need to

double the number of new graduates entering and staying in the nursing workforce every year for the next three years.

Numerous studies and research have proven the relationship between nurse staffing ratios (especially Registered Nurse to patient staffing ratios) and patient safety, which indicates an increased risk of patient safety events, morbidity, and even fatality as the number of patients per nurse increases. The National Institutes of Health discovered that adding one patient to a nurse's caseload raises the probability of patient death by seven percent. Each additional patient assigned to a registered nurse beyond the optimum ratio significantly increases the risk of preventable death, longer institutional stays, readmissions and unfavorable patient satisfaction. It directly results in less effective care, poorer patient outcomes and higher costs of care.

The status quo of nurse staffing is an unsustainable crisis. Adequate nursing staff is crucial for improving patient outcomes, safety and quality of care. We cannot solve this crisis by continuing to mandate double shifts, by relying on traveling and temporary nurses, and by increasing patient caseloads. Such action is dangerous to all parties involved. The good news is that there are serious solutions to alleviate and fix this crisis that must be implemented.

AFSCME strongly supports the Nurse Staffing Standards for Hospital Patient Safety and Quality Care Act (S. 1113), which would help fix the crisis of unsafe levels of nurse staffing in hospitals nationwide. S. 1113 would require hospitals to develop and implement nurse staffing plans that meet minimum nurse-to-patient staffing ratios. We understand that this cannot happen overnight and that it will take time and investments in order to fill vacancies and improve working conditions.

This is why the bill gives hospitals two years to develop staffing plans that comply with minimum ratio standards and reflect patient acuity. S. 1113 also allows for additional Medicare reimbursements to help staff the front lines with an adequate number of nurses per patient.

Comprehensive Solutions To Bolster Nurse Workforce

There is not a one size fits all policy that will fix the entire nurse staffing crisis. Comprehensive solutions are needed to bolster the nursing workforce and improve the quality of health care delivered to patients. In addition to supporting S. 1113, we urge the Committee to consider:

- The Workplace Violence Prevention for Health Care and Social Service Workers Act (S. 1176), which would require the Occupational Safety and Health Administration (OSHA) to expedite a standard on workplace violence prevention in health care and social service assistance settings.
- Strong labor laws which allow nurses to advocate for their profession and patients by collectively bargaining for better wages, benefits and safer working conditions. Passage of the Richard L. Trumka Protecting the Right to Organize Act (S. 567) would help nurses who face steep obstacles in forming a union by imposing stronger penalties on employers for violating workers' rights, closing loopholes that enable worker exploitation and increasing access to fair union elections.

- Policies to incentivize individuals to enter the nursing workforce by ensuring that nurses are not required to pay federal income tax on their Nurse Corps student loans and scholarships.
- Increased funding to nursing schools at four-year universities and community colleges to support the retention and recruitment of teaching faculty and/or clinical preceptors with the goal of getting more nursing students into the pipeline.

Thank you for considering our views. We look forward to working with you to address the nursing staffing crisis.

Sincerely,

Edwin S. Jayne
Director of Federal Government Affairs

ESJ: DH:ei

cc: Members of the Committee

U.S. Senate Committee on Health, Education, Labor and Pensions

"Overworked and Undervalued: Is the Severe Hospital Staffing Crisis Endangering the Well-Being of Patients and Nurses?"

Friday, October 27, 2023

Nicholas Music Center, Rutgers University

Written Testimony of Testimony of Debora M. Hayes, Area Director Upstate NY/NE/CT
Communications Workers of America, District 1

Adam Liebtag, President Local 1036
Michele Long-Vickers, President Local 1040
Shannon Gomes, President Local 1091

Chairman Sanders, Ranking Member Cassidy, and distinguished members of the Senate Committee on Health, Education, Labor, and Pensions, thank you for the opportunity to submit testimony for the record on the important and long-standing topic of hospital understaffing.

My name is Debbie Hayes and I am the Upstate New York Area Director for the Communications Workers of America District 1 and a registered nurse. CWA District 1 represents approximately 20,000 public and private nurses and frontline healthcare workers in New York and in New Jersey. Labor unions play a vital role in addressing low pay among hospital staff through advocacy and collective bargaining. My members have mobilized and fought for improved pay, working conditions, and staffing levels that we know are critical to improving the quality of care our members provide. For the last 44 years, my entire career, from the picket line, to the bargaining table, to the halls of our State Capital- I have been relentlessly fighting for safe staffing.

New York and New Jersey, along with the rest of the Country, are facing an urgent healthcare crisis. There are constant headlines about the "healthcare worker shortage" and the inability of hospitals and healthcare facilities to hire and retain workers. For example, in New Jersey, there are over 13,000 openings.[1] While there are certainly healthcare workforce pipeline issues that must be addressed, the real crisis is the shortage of *good* healthcare jobs, jobs that do not cause moral and physical injury and that treat healthcare workers with the dignity and respect they deserve.

There are many licensed RNs and direct care team members in the U.S. who are not actively working in the field because they are unwilling to work in understaffed facilities and these horrific working conditions. In fact, in NYS only 53% of licensed nurses are actively working as nurses. The recruitment and retention challenges facing healthcare facilities across the region is a direct result of the conditions they are forced to work in, primarily being forced to work short staffed. There are many healthcare workers who chose to become travel nurses chasing higher pay and better staffing conditions - or at least the safety of a finite contract. Travel nurse agencies offer wages often double or three times higher than

[1]https://www.nj.com/healthfit/2023/05/how-bad-is-njs-nursing-shortage-it-has-13000-openings-and-counting.html

those of directly employed nursing staff.[2] Instead of investing in a permanent workforce and the improvement of working conditions, short-sighted wage and staffing policies result in higher costs even as long-term staffing issues remain unaddressed.

It is an unfortunate and indisputable truth that facilities that do not address – or are not compelled to address – staffing shortages will spiral into deeper recruitment and retention problems, leading to chronic understaffing, deteriorating working conditions, and worse healthcare outcomes. When nurses are at risk physical injury and burnout, are concerned for their nursing license if something should go wrong, and are covering more than a safe number of patients during a shift, it's no wonder that short staffing begets higher turnover because nurses will simply look for alternative work.

Safe staffing is not only vital for workers, but for patients. Decades of research is unequivocal - safe staffing saves lives. Clinical and academic studies repeatedly have shown that adequate staffing improves patient outcomes and even saves money. Safe staffing reduces adverse patient outcomes including death, reduces the average length of stay, and reduces turnover in the healthcare workforce. The level of care is superior and healthcare workers feel more satisfied in the performance of their job.

The devastating consequences of understaffing, exacerbated by COVID-19, can be seen in the mortality rates. There are significant disparities in mortality rates between hospitals that are well-resourced and other hospitals that are not. According to data collected and analyzed by the New York Times, patients at hospitals with lower staffing rates and worse equipment were three times more likely to die than patients in better-staffed and resourced medical centers.

As a union that also represents state government employees in New Jersey, we can speak from the perspective of those who regulate hospitals and investigate complaints. Due to their own short staffing problems, state regulators often cannot respond quickly enough to short staffing complaints from nurses or their unions. Both the state and federal government should provide more resources for compliance and enforcement of staffing ratios in hospital and other healthcare settings.

The pandemic has put unprecedented strain on our healthcare system and it is only due to the bravery and steadfast commitment of our healthcare workers that we have been able to weather this global crisis. But while the global support for "healthcare heroes" has waned, the conditions that healthcare workers are facing, in many ways, are worse than ever. The burnout and mental toll the pandemic has taken on healthcare workers must be acknowledged and addressed. A recent article published in the *Journal of General Medicine,* found extraordinary levels of burnout among healthcare staff. The article also found that 41% of nurses and 32% of clinical and non-clinical titles reported preparing to leave the field in the next two years due to being overworked and burned out[3].

---

[2] Emma Cuchin, "How does Travel Nurse Pay Compare to Permanent Staff Nurses?", Center for Economic and Policy Research, June 15, 2023 https://www.cepr.net/how-does-travel-nurse-pay-compare-to-permanent-staff-nurses/

[3] Rotenstein, L.S., Brown, R., Sinsky, C. et al. The Association of Work Overload with Burnout and Intent to Leave the Job Across the Healthcare Workforce During COVID-19. J GEN INTERN MED 38, 1920–1927 (2023). https://link.springer.com/article/10.1007/s11606-023-08153-z

While the pandemic stretched our hospital system to a point we were not prepared for, many of the issues are long-standing issues that were exacerbated by Covid-19. Chronic underfunding of our healthcare systems has incentivized keeping the healthcare workforce as lean as possible, at the expense of workers and patients. In order to protect our healthcare workers, and our hospitals and ensure the best quality of care for all patients, we need a massive investment in our healthcare system, in our hospitals, and in our healthcare workers.

The issue of understaffed and under-resourced hospitals is not new. As a union that has represented healthcare workers for over fifty years, we have heard daily from our members about the impossible choices they have to make because they do not have enough staff to adequately care for their patients and residents. Staffing is at the top of the list of poor working conditions for our members year after year. However, this is not exclusively a labor issue. The terror that our members face on a daily basis is not about the bathroom breaks and lunches they are forced to work through, it is the care that goes undone, the minutes patients and families are left waiting, and the pit in workers' stomachs that comes from knowing that given more staff they could've done better. Terror that turns into anger and tears on the drive home.

We need to do right by the healthcare heroes who work in our hospitals, our nursing homes, and our healthcare facilities. We need to do right by our communities who deserve high-quality care. We need a substantial investment in our healthcare systems, robust revitalization of the healthcare workforce pipeline and an unwavering commitment to making healthcare jobs good healthcare jobs, with fair and safe working conditions, better wages and benefits, and the assurance that workers will be able to provide the care they are trained to.

I thank the Chairman and the Committee for allowing me to share my experiences on this issue.

1199SEIU
United Healthcare Workers East

Friday, October 27, 2023

Statement Prepared by 1199SEIU on Behalf of the Registered Nurses at Clara Maass Medical Center

U.S. Senate Committee on Health, Education, Labor & Pensions Field Hearing

Nicholas Music Center, Rutgers University, 85 George St., New Brunswick, NJ

As the largest healthcare system in New Jersey and the state's largest private sector employer, RWJBarnabas Health has consistently refused to heed the input of their own nurses about how to improve patient care and create a sustainable healthcare delivery system for nurses and the communities they serve. In August 2022, 550 nurses at Clara Maass Medical Center (CMMC) in Belleville, New Jersey voted to join 1199SEIU United Healthcare Workers East. Now, these nurses are bargaining their first contract but their proposals at the bargaining table for addressing and improving working conditions and patient care at the Hospital are consistently rejected. The Hospital is stubbornly fighting to maintain the unsustainable status quo, which leads to crushing patient loads and overwhelmed and unappreciated staff. Although they hailed their nurses as healthcare "heroes" during the pandemic, CMMC now refuses to include their nurses' input in improving staffing and quality patient care, which would make the hospital a better place to work and receive care.

"A handful of nurses cannot safely care for dozens of patients in critical condition on a regular basis," says Kristina Wehr, an RN, Women's Health Clinic at Clara Maass Medical Center. "Our highest acuity patients need dedicated attention. Yet Management continues to reject our basic proposal that nurses should be involved in determining appropriate staffing ratios. Our patients' lives are on the line."

Implementing safe staffing informed by the working experiences of CMMC nurses must be prioritized by RWJB Health. Doris Teijeiro, RN, 5N notes, "the mental and physical strain of 1 nurse caring for 8 or more patients at once is unbearable," and these "conditions drive qualified RNs away from our hospital."

NEW JERSEY REGIONAL HEADQUARTERS
555 Rt. 1 South, 3rd Fl., Iselin, NJ 08830 — (732) 287-8113

1199SEIU.ORG

1199SEIU
United Healthcare Workers East

CMMC nurses have submitted proposals aimed at retaining staff, but "Management refuses to compensate our most senior nurses according to their expertise," says Audrey Chio, RN, Interventional Radiology, CMMC. "The new nurses who come here to train leave because they are so overworked and are placed in conditions that endanger their licenses. We are asking for fair compensation and our long overdue raises so we can stop losing qualified RNs and improve patient care, but management keeps saying no."

Just a few months ago, CMMC Management punished 9 of their nursing staff when they attempted to voice concerns about patient care protocols by delivering a petition. CMMC Bargaining Committee member and ICU RN, Tanya Howard, was one of the 9 nurses interrogated by the Hospital and placed on administrative leave after peacefully delivering the petition to her manager, who refused to accept it. "After 23 years at this hospital, that hurt me deeply. Management suspended us, just for speaking up about patient care, in the middle of a chronic nurse shortage. The Hospital's actions left the RNs on the floor even more overworked, thereby putting patient care at risk." The Union filed unfair labor practice charges with the federal National Labor Relations Board, and is awaiting appropriate response by the government to the Hospital's repressive conduct.

Because nurses are the foundation of any hospital, it is bad medicine for RWJBarnabas Health to continue ignoring their concerns. As Denise Salamanca, RN, CMMC, puts it, "This union fight is not just about the money. We are fighting for all the things that make us, nurses, better able to do our jobs. We need good, safe staffing ratios so that we can properly take care of our patients, who are the heart of what we do. We deserve a voice at the table and respect. Management continues to say no, to brazenly ignore us when we are the backbone of this hospital."

NEW JERSEY REGIONAL HEADQUARTERS
555 Rt. 1 South, 3rd Fl., Iselin, NJ 08830 — (732) 287-8113

1199SEIU.ORG

nurse alliance of SEIU Healthcare

October 25, 2023

SEIU Submission to Senate HELP Committee Field Hearing: Overworked and Undervalued: Is the Severe Hospital Staffing Crisis Endangering the Well-Being of Patients and Nurses?

Dear Senate HELP Committee leadership and members,

On behalf of the 85,000 nurses of the Service Employees International Union (SEIU) National Nurse Alliance, I write to underscore the urgency of the hospital staffing crisis situated within the larger country-wide healthcare jobs crisis. Our letter lays out both the drivers of the crisis and policy solutions.

Background

Healthcare workers have always been essential. Yet even as the nation begins to emerge from the pandemic, the crisis for healthcare workers continues unabated. One in five healthcare workers has left the profession since the beginning of the pandemic and more workers consider leaving every day.[1]

America will need at least 200,000 additional nurses per year to meet increased demand and to replace retiring nurses.[2] One survey suggests that 85% of nurses plan to leave their hospital jobs in the next year.[3] It's not just nurses that are in short supply and leaving the profession. Eighty-five percent of healthcare facilities are experiencing at least moderate shortages of allied and behavioral health professionals. [4] Staffing shortages in

[1] Yong, E. (n.d.). Why Health-Care Workers Are Quitting in Droves. The Atlantic. https://www.theatlantic.com/health/archive/2021/11/the-mass-exodus-of-americas-health-care-workers/620713/
[2] Fact sheet: Strengthening the health care workforce: AHA. American Hospital Association. (n.d.). Retrieved March 6, 2023, from https://www.aha.org/fact-sheets/2021-05-26-fact-sheet-strengthening-health-care-workforce
[3] Hollowell, A. (n.d.). 85% of nurses plan to leave hospital roles 1 year from now: Survey. https://www.beckershospitalreview.com/nursing/85-of-nurses-plan-to-leave-hospital-roles-1-year-from-now-survey.html85% of nurses plan to leave hospital roles 1 year from now. Becker's Hospital Review:Survey. https://www.beckershospitalreview.com/nursing/85-of-nurses-plan-to-leave-hospital-roles-1-year-from-now-survey.html; https://www.cnn.com/2023/04/13/health/nurse-burnout-post-pandemic/index.html
[4] Kayser, A. (n.d.). *85% of health facilities short on allied health workers.* https://www.beckershospitalreview.com/workforce/85-of-health-facilities-short-on-allied-health-workers.html#:~:text=The%20problem%3A laboratory%20technicians%20and%20occupational%20therapists.; Healthcare workers still think about quitting

allied and behavioral health professionals have a direct impact on nursing workloads and stress, as nursing shortages impact every part of the hospital.

Nurse shortages hurt both healthcare workers and patients. Short staffing leads to delays in boarding in emergency departments, longer hospital stays, and delayed surgical care.[5] Each of these contributes to adverse outcomes, and a rise in medical errors.[6] As shown in this report[7] covering the care crisis at HCA, unsafe staffing is correlated with poor patient outcomes, stress, burnout and injury on the job for nurses, and high turnover.[8] In a recent survey of nurses who indicated they may leave the profession, nearly 60 percent said that insufficient staffing and workload were the primary drivers of their desire to leave.[9] Nurses also cite unsafe work environments (23.2%), underappreciation (22.6%) and low wages for the complexity and volume of work (17.5%) as regular features of their jobs.[10]

These factors create almost unsustainable working conditions, making the nurse shortage a jobs crisis. Nearly 18% of newly licensed registered nurses quit the profession within the first year, leaving because of stress on the job, short staffing, and a lack of support necessary to learn the job partially driven by short staffing and turnover.[11,12] The loss of newly licensed nurses compound the current shortage and endanger future supply, especially given the large number of nurses retiring or nearing retirement.[13]

---

often, even on. (2023, March 3). Healthcare IT News. https://www.healthcareitnews.com/news/healthcare-workers-still-think-about-quitting-often-even-well-staffed-teams

[5] The Joint Commission, a major agency that monitors hospitals and health facilities, reported a 19% rise in adverse events in 2022. After several decades of creating a safety culture in health care, this is a chilling statistic. https://time.com/6291392/american-health-care-staffing-crisis/

[6] Brennan CW, Daly BJ, Jones KR. State of the Science: The Relationship Between Nurse Staffing and Patient Outcomes. Western Journal of Nursing Research. 2013;35(6):760-794. doi:10.1177/0193945913476577

[7] Care Crisis;How Low Staffing Contributes to Patient Care Failures at HCA Hospitals. A Report by the Service Employees International Union. https://hcavsamerica.org/wp-content/uploads/2023/01/SEIU_StaffingPaper_R8.pdf

[8] Griffiths P, Recio-Saucedo A, Dall'Ora C, Briggs J, Maruotti A, Meredith P, Smith GB, Ball J; Missed Care Study Group. The association between nurse staffing and omissions in nursing care: A systematic review. J Adv Nurs. 2018 Jul;74(7):1474-1487. doi: 10.1111/jan.13564. Epub 2018 Apr 23. PMID: 29517813; PMCID: PMC6033178.; Butler M, Schultz TJ, Halligan P, et al. Hospital nurse-staffing models and patient- and staff-related outcomes. Cochrane Database Syst Rev. 2019;4(4):CD007019. Published 2019 Apr 23. doi:10.1002/14651858.CD007019.pub3

[9] Nursing in 2021: Retaining the healthcare workforce when we need it most. May 11, 2021 | Article https://www.mckinsey.com/industries/healthcare/our-insights/nursing-in-2021-retaining-the-healthcare-workforce-when-we-need-it-most#/

[10] The Joint Commission, a major agency that monitors hospitals and health facilities, reported a 19% rise in adverse events in 2022. After several decades of creating a safety culture in health care, this is a chilling statistic. https://time.com/6291392/american-health-care-staffing-crisis/

[11] Why nurses quit and leave the profession | ANA. (2023, May 9). ANA. https://www.nursingworld.org/practice-policy/nurse-staffing/why-nurses-quit/

[12] Martin B, Kaminski-Ozturk N, O'Hara C, Smiley R. Examining the Impact of the COVID-19 Pandemic on Burnout and Stress Among U.S. Nurses. J Nurs Regul. 2023 Apr;14(1):4-12. doi: 10.1016/S2155-8256(23)00063-7. Epub 2023 Apr 5. PMID: 37035777; PMCID: PMC10074070..

[13] / https://www.ncsbn.org/public-files/2020_NNW_Executive_Summary.pdf

Our Solutions

High quality health care jobs benefit workers, patients, and communities by ensuring a stable, adequate healthcare workforce that is positioned to provide high quality care. The staffing crisis in hospitals is driven by corporate greed and cost cutting by administrators, a lack of good quality jobs that would retain staff, and persistent and decades long shortages, made worse by the pandemic. Below are foundational solutions to the jobs crisis including holding corporations accountable for safe staffing, ensuring the right to join a union, guaranteeing safe workplaces and access to mental health care, and addressing access to education and career pipelines into nursing and other healthcare professions.

1. **Hold Hospitals Accountable for safe staffing**

Without staffing standards, some health systems like HCA (the largest for-profit hospital system in the country) are able to boost profits by maintaining low staffing levels,[14] since labor is the largest cost for hospitals by far. Congress must set standards for adequate staffing levels in hospitals and create mechanisms for corporate accountability and transparency so that healthcare funding is directed to wages and direct care instead of being diverted to profits and shareholders.

> **Congress can act now to ensure safe staffing levels in hospitals by passing the Nurse Staffing Standards for Hospital Patient Safety and Quality Care Act, which requires mandated minimum registered nurse-to-patient ratios.**

2. **Unions for All**

Despite their key role in the healthcare delivery system, workers on the front lines of delivering hospital services often have no voice in the discussions around delivery of care and related issues—even though the work they do contributes directly to the overall quality of care in a variety of settings. Fixing our healthcare crisis requires ensuring that all workers have a voice in the decisions that affect them and the people they serve. But the current system denies most healthcare workers an effective and easy pathway to unionization.

- Legislative action should create industrial tables, health and safety councils with enforcement and worker participation, requirements on public dollars, quid pro quos on any structural relief for employers, and other opportunities to help healthcare workers join and form unions as an immediate and long-term solution.

---

[14] NBCUniversal News Group. (n.d.). Some workers at U.S. hospital giant HCA say it puts profits above patient care. NBCNews.com. Retrieved March 12, 2023, from https://www.nbcnews.com/health/health-news/workers-us-hospital-giant-hca-say-puts-profits-patient-care-rcna64122.

We must ensure every worker, including every healthcare worker, has the right and the opportunity to join a union. **One key way to ensure this right is by passing the Protecting the Right to Organize (PRO) Act.**

3. **Ensure Safe Workplaces**

The healthcare industry has the highest rate of workplace violence injuries in the country, and healthcare workers are five times more likely to be injured than workers in other sectors.[15] In a 2022 survey, 25% of healthcare workers said they were ready to quit their jobs due to violence they experienced at work.[16] Nurses are especially vulnerable to injury and assault in the workplace given their close proximity to patients.[17] Healthcare workers have the right to a safe workplace for themselves and their patients, consumers and residents.

> **Congress must pass the Workplace Violence Prevention for Health Care and Social Service Workers Act which directs the Secretary of Labor to issue an occupational safety and health standard that requires covered employers within the health care and social service industries to develop and implement a comprehensive workplace violence prevention plan.**

4. **Increase Access To Mental Health Services**

Millions of healthcare workers are uninsured, underinsured, or lack access to good mental health care.[18] Even those who have mental health benefits are often unable to find a provider in their area, cannot find a provider who takes their insurance or cannot afford the out-of-pocket cost.[19]

According to one survey, almost 6 in 10 frontline healthcare workers said that stress from the pandemic had harmed their mental health.[20] In a recent study, 51 percent of nurses surveyed reported experiencing

---

[15] Lim MC, Jeffree MS, Saupin SS, Giloi N, Lukman KA. Workplace violence in healthcare settings: The risk factors, implications and collaborative preventive measures. Ann Med Surg (Lond). 2022 May 13;78:103727. doi: 10.1016/j.amsu.2022.103727. PMsID: 35734684; PMCID: PMC9206999.
[16] Gooch, K. (n.d.). 25% of critical healthcare staff willing to quit over workplace violence. Becker's Hospital Review. Retrieved March 6, 2023, from https://www.beckershospitalreview.com/workforce/25-of-critical-healthcare-staff-willing-to-quit-over-workplace-violence.html
[17] "Five Urgent Steps To Address Violence Against Nurses In The Workplace", Health Affairs Forefront, August 23, 2023. DOI: 10.1377/forefront.20230822.174151
[18] Rachel Garfield, M. R. F. @matthew_t_rae on T., & 2020, A. (2020, April 29). Double jeopardy: Low wage workers at risk for health and financial implications of covid-19. KFF. Retrieved March 9, 2023, from https://www.kff.org/coronavirus-covid-19/issue-brief/double-jeopardy-low-wage-workers-at-risk-for-health-and-financial-implications-of-covid-19/; AMA J Ethics. 2022;24(9):E871-875. doi: 10.1001/amajethics.2022.871.; https://www.brookings.edu/research/essential-but-undervalued-millions-of-health-care-workers-arent-getting-the-pay-or-respect-they-deserve-in-the-covid-19-pandemic/
[19] Conroy, J., Lin, L., & Ghaness, A. (n.d.). Why people aren't getting the care they need. Monitor on Psychology. Retrieved March 9, 2023, from https://www.apa.org/monitor/2020/07/datapoint-care
[20] Topline: KFF and Washington Post Frontline Health Care Workers Survey March 2021.https://context-cdn.washingtonpost.com/notes/prod/default/documents/4d8d1ddf-c192-40f9-9e3a-7a3fefa0d928/note/91e5f1ac-2cc5-41bb-b164-ecb4d77ed0b5.#page=1

depression, 42 percent reported symptoms of post traumatic stress disorder, and 15 percent have had recent thoughts of suicide or self-harm.[21]

We must meet this burgeoning need for mental health support with a response that creates a larger workforce of mental health professions.

Congress must:

- **Create dedicated funding to support the growth of a robust network of geographically and racially and ethnically diverse mental health professionals** to ensure culturally-competent care and access to high quality mental health services as noted by both the Biden Administration's Strategy to Address the Mental Health Crisis and in the Surgeon General's 2022 Report on Healthcare Worker Burnout.[22]
- **Create dedicated funding streams to expand career pipelines, grow the workforce of peer support specialists, and increase reimbursements to retain mental health workers in the profession** [23]

5. **Expand Access to the Nursing Profession**

A diverse healthcare workforce, especially on the frontlines of nursing, is essential to improving patient experiences, reducing racial disparities in patient outcomes, and increasing access to needed care. [24] In order to create a more diverse workforce we must create systems that reduce barriers to educational and career opportunities that result in the occupational segregation of BIPOC individuals, immigrants, and women into low-wage jobs that lack opportunities for advancement.[25]

Training, education, and financial support for working learners are foundational to creating a workforce pipeline and building lifelong careers, especially for incumbent working learners. Labor management training

---

[21] Hendrickson, R.C., Slevin, R.A., Hoerster, K.D. et al. The Impact of the COVID-19 Pandemic on Mental Health, Occupational Functioning, and Professional Retention Among Health Care Workers and First Responders. J GEN INTERN MED 37, 397–408 (2022). https://doi.org/10.1007/s11606-021-07252-z
[22] Health worker burnout - current priorities of the U.S. Surgeon general. - Current Priorities of the U.S. Surgeon General. (n.d.). Retrieved March 9, 2023, from https://www.hhs.gov/surgeongeneral/priorities/health-worker-burnout/index.html
[23] "To Grow The Mental Health Workforce, Pay For Care Delivered By Trainees", Health Affairs Forefront, July 18, 2022. DOI: 10.1377/forefront.20220714.921651.
https://www.ncsl.org/health/state-strategies-to-recruit-and-retain-the-behavioral-health-workforce
[24] Stanford FC. The Importance of Diversity and Inclusion in the Healthcare Workforce. J Natl Med Assoc. 2020 Jun;112(3):247-249. doi: 10.1016/j.jnma.2020.03.014. Epub 2020 Apr 23. PMID: 32336480; PMCID: PMC7387183.
[25] S. N. A., Nadeau, S., A., Shepherd, E. L. A., Lofgren, E., Schweitzer, J., Khattar, R., Roque, L., Hassel, J., Medina, C., Eisenberg, R., & Zhavoronkova, M. (2022, December 5). Occupational Segregation in America. Center for American Progress. Retrieved March 7, 2023, from https://www.americanprogress.org/article/occupational-segregation-in-america/

partnerships (LMTPs)[26] such as the 1199UHE Training and Employment Fund[27] and the Education Fund[28] are able to leverage employer contributions and relationships with community colleges to provide supportive services, remedial education, and counseling so that working learners can access educational opportunities while also continuing to earn a living.[29]

These existing infrastructures should be models for states and regions that lack them and should be foundational in broader-scaled training initiatives in regions where they already exist.

Therefore, Congress should:

- **Provide federal funding to joint state/employer/labor and LMTP programs** to establish and run regional career pipelines for incumbent workers and those who wish to enter the profession. This should be funded through long-lasting appropriations, rather than short-term grants or other temporary funding.
- **Provide dedicated funding for High Road Training Partnerships:** The federal government should provide enhanced matching funding to state and local workforce development boards to support the creation of high road training partnerships focused on healthcare [30]

Congress must also address shortages in nurse faculty, and the lack of preceptorships and clinical placements that prevent universities from enrolling more than 66,000 qualified applicants to BSN programs, and thousands from enrolling in community colleges last year.[31]

- **Congress should pass the Future Advancement of Academic Nursing (FAAN) Act (H.R. 851/S. 246).** This bill would address the enrollment and retention of nursing students from disadvantaged backgrounds, increase hiring and retention of a diverse faculty, modernize school infrastructure, and expand clinical education.[32]

---

[26] Labor-management partnerships—independent organizations that unions and employers jointly control—allow partners to collaboratively design and manage workforce training, professional learning, and apprenticeship opportunities. Research finds that these sorts of programs can help employers recruit and retain skilled workers; improve work quality; boost productivity; and strengthen employee relations.Daron Acemoglu and Jörn-Steffen Pischke, "Beyond Becker: Training in Imperfect Labour Markets," The Economic Journal 109 (453) (1999): F112–F142, available at https://economics.mit.edu/files/3810; Mark E. Van Buren, "What Works in Workforce Development" (Alexandria, VA: American Society for Training and Development and Association of Joint Labor-Management Educational Programs, 2003), available at https://partners.aflcio.org/system/files/3.whatworks_astd.pdf.
[27] https://www.1199seiubenefits.org/training-and-education/
[28] https://theedfund.org/
[29] Lazes, Peter, Maria Figueroa, and Liana Katz. (2012). How Labor-Management Partnerships Improve Patient Care, Cost Control and Labor Relations. Ithaca, NY: Cornell University Institute of Labor Relations.https://www.labormanagementinitiatives.org/wp-content/uploads/2014/11/Benefits-of-LM-Partnership-Cross-Industry-Lit-Review.pdf
[30] The High Road to economic prosperity. UCLA Labor Center. (n.d.). Retrieved March 6, 2023, from https://www.labor.ucla.edu/publication/highroadreport/
[31] American Association of Colleges of Nursing, "Student Enrollment Surged in U.S. Schools of Nursing in 2020 Despite Challenges Presented by the Pandemic."
[32] FAAN Act of 2021, H.R. 851/S. 246, 117th Cong., 1st sess. (February 4, 2021), available at https://www.congress.gov/bill/117th-congress/house-bill/851/text.

Thank you for your consideration. If you have any questions please contact Elizabeth Royal at elizabeth.royal@seiu.org or Sarah Heydemann at sarah.heydemann@seiu.org.

Sincerely,

Martha Baker, RN

Chair of SEIU National Nurse Alliance

Executive Director, SEIU 1991

Tara Sanseverino RN
25 Dexter Road
East Brunswick, NJ 08816
(732) 485-3730
tarasanseverino@gmail.com

October 26, 2023

The Honorable Bernie Sanders
Chairman, Senate Health, Education,Labor, and Pensions Committee
322 Dirksen Building
Washington, DC 20510

Dear Chairman Sanders,

I have been a Registered Nurse since 2011, and I am an active member of the Emergency Nurses Association, ENA. I want to share with you the challenges we face each shift, in the emergency department at Robert Wood Johnson University Hospital. When I started in the ED in 2015, I was assigned eight patients on my second orientation shift and I was told “if you can manage eight patients, you will be fine”. This is unacceptable, unsafe for patient outcomes and the demands have never changed. Many nurses prior to the pandemic have left because of demands on patient care, which has not change. Patients were lining the hallways, boarding for days and the workloads became heavier, which has not changed. Senior nurses started to leave the bedside and more and more new nurses, such as new graduates and travelers were hired during and after the pandemic which has not changed. As a staff nurse who is now a per diem nurse, I am no longer a part of the union or the strike, but I fully support the strike and the need for change!

The staffing ratios continue to grow and the retention of nurses has declined. The critical patients do not stop arriving and the acuity of patients is also increasing. Senior nurses such as myself with more than 10 years or more of nursing and critical care experience are expected to support new graduates while maintaining assignments for six to nine patients with inadequate staffing. We have become tired and burnt out. In a Level 1 trauma center, noone can predict what the intake and acuity of trauma patients or any other pateints will be. Therefore, adequate staffing allows for optimal care, frequent assessments, swift movement throught the department and lastly, transportation of the trauma patient to the OR or ICU where they can be stabillized to decrease mortality. Unsafe ratios have drained myself and my coworkers. We have lost new graduates because they had no idea “this is

what nursing had become". How can we help new nurses bridge the Nursing Theory Gap when we can barely keep our own patients safe by meeting the demands of the care we need to provide? The mental health of many nurses, like myself, who worked countless hours in the COVID-19 pandemic has suffered. We have become second victims to the same environment where we have given every ounce that we can to keep our patients safe while simultaneously neglecting our own self care.

The demands for mental health patients has increased in our department, as well as workplace violence. Safe staffing can aid in the demands for more supportive care of mental health patients and can also assist nursing staff to address aggravating circumstances that lead to workplace violence.

To conclude, I had to cross the picket line for the first time since the strike because I received and email asking for per diem help, the first time since August when the strike began. My experience was this: at 1900 there was approximately 27 patients in the department, an area that we staff with 2 nurses, was staffed with 6 nurses, Trauma and Resucitation was staffed with 2 night shift nurses when we typically have 1. Triage had 2 nurses when typically we have none or 1 nurse. The main ED had ratios of 1:4 or less. Nurses were all covered for breaks. Nurses were also to be sent home at 2300 as "staffing was good". I observed safe staffing levels that would allow for safe patient care and more appropriate ratios.

Sincerely,

Tara Sanseverino RN


A Union of Professionals
AFT Nurses and
Health Professionals
HEALTHCARE
STAFFING SHORTAGE
TASK FORCE REPORT

Our Mission

The **American Federation of Teachers** is a union of professionals that champions fairness; democracy; economic opportunity; and high-quality public education, healthcare and public services for our students, their families and our communities. We are committed to advancing these principles through community engagement, organizing, collective bargaining and political activism, and especially through the work our members do.

LETTER FROM
RANDI WEINGARTEN, AFT PRESIDENT

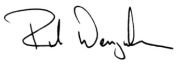
For nearly three years, our nation's health professionals have worked through unprecedented challenges. This has compounded the strain on an already exhausted workforce, leaving most emotionally drained and far too many in mental health distress. As a result, frontline healthcare workers have been leaving and are continuing to leave the health professions in record numbers.

This year, I convened a Healthcare Staffing Shortage Task Force comprised of AFT state and local union leaders, as well as frontline healthcare workers. The task force's charge was to examine the state of the healthcare workforce and to identify steps that policymakers, employers and unions can take to ensure that hospitals and healthcare facilities are appropriately staffed to provide high-quality care to all. I want to thank each member of the task force and our members who participated in listening sessions, responded to surveys and lent their perspective.

While the consequences of the chronic understaffing of our nation's healthcare facilities can be deadly, the problem is solvable. Our nation's healthcare employers must invest in the workforce, improve the working conditions, make healthcare facilities a safe place to work, and engage frontline workers in collaborative decision-making. Prioritizing patients over maximizing revenue means recruiting and retaining the workforce needed to deliver high-quality care.

The dedication of our frontline healthcare workers to their patients and to one another was a bright light during the darkest days of the pandemic. We, as a nation, owe our frontline health workers so much, and this report is intended to highlight ways we can do that and, in so doing, put patients over profits.

In unity,



AFT President

TASK FORCE MEMBERS

- Vicky Byrd, Montana Nurses Association, AFT vice president
- Debbie White, Health Professionals and Allied Employees, AFT vice president
- John Brady, AFT Connecticut, PPC chair
- Anne Goldman, United Federation of Teachers, PPC chair
- Julia Barcott, Washington State Nurses Association, PPC member
- Carolyn Cole, Public Employees Federation, PPC member
- Shannon Davenport, Alaska Nurses Association
- Rebecca Garrabrant, United Federation of Teachers
- Nora Higgins, Public Employees Federation, PPC member
- Joshua Holt, Oregon Federation of Nurses and Health Professionals
- David Keepnews, Washington State Nurses Association, PPC member
- Jamie Lucas, Wisconsin Federation of Nurses and Health Professionals, PPC member
- Sandra Nin, United Federation of Teachers
- Maria Paradiso, United Federation of Teachers
- Anne Tan Piazza, Oregon Nurses Association
- Howard Sandau, United Federation of Teachers
- Elvie Smith, United Federation of Teachers

Introduction

Any conversation over the last 24 months with a frontline healthcare worker quickly reveals the deep frustration and anger with their employers and sheer mental, physical and emotional exhaustion.

The stories from AFT members are heartbreaking: A nurse in Connecticut assigned to 11 patients, a healthcare worker in Oregon who spends 20 minutes before each shift in tears trying to muster the emotional strength to go to work, the nurse in Montana who sees a colleague walking away from bedside care, the healthcare worker in New Jersey grieving the death of a colleague who contracted COVID-19 at the hospital. These are dark days for the healthcare workforce.

The COVID-19 pandemic revealed a healthcare system woefully unprepared for the crisis, allowing the world to see a chronic understaffing of our nation's healthcare facilities that existed well before the pandemic. To be clear, this staffing crisis is not new, and it's a crisis of the healthcare employers' making. Their decisions to put revenue ahead of patients and frontline caregivers left the workforce without appropriate personal protective equipment, exposed their employees to increasing levels of workplace violence, stretched patient loads to unprecedented and unsafe levels, and left a workforce exhausted and for far too many in mental health distress. As a result of these exploitative working conditions, it comes as no surprise that frontline caregivers are leaving their jobs in record numbers.

As U.S. Surgeon General Vivek H. Murthy recently wrote, "Today, when I visit a hospital, clinic or health department and ask staff how they're doing, many tell me they feel exhausted, helpless and heartbroken. They still draw strength from their colleagues and inspiration from their patients, but in quiet whispers they also confess they don't see how the health workforce can continue like this. Something has to change, they say."[1]

There are profound long-term staffing consequences for our country's healthcare facilities. Frontline caregivers are experiencing unprecedented burnout and exhaustion from the trauma of working in perilous conditions. Now they are quitting in in record numbers. America's hospitals have failed to fulfill their most basic responsibility: providing a safe place for patients to receive medical care.

As one of our nation's largest unions representing healthcare workers, the AFT and our affiliates have been forced to reckon with dangerously inadequate staffing in our nation's hospitals and healthcare facilities, as well as colleagues who are planning to leave their jobs. Decades of understaffing has reached a crisis point, and it is a crisis of the healthcare industry's own making.

In response to the crisis of staff willing to endure the working conditions of our nation's healthcare facilities, delegates to the AFT's biennial national convention in July 2022, passed a pointed resolution "Addressing Staffing Shortages in the Healthcare Workforce" [2] adopting the recommendations made by the Healthcare Staffing Shortage Task Force and, among other things, specifically calling for:

- The passage of state and federal safe patient levels and securing staffing ratios in collective bargaining agreements;
- Banning mandatory overtime;
- Passage of federal and state workplace violence protection legislation, including the Workplace Violence Prevention for Health Care and Social Service Workers Act; and
- Adequate pandemic preparedness protections in the law through means such as an Occupational Safety and Health Administration infectious disease standard and updates to the Centers for Medicare & Medicaid Services emergency preparedness rule.

This report is the product of the AFTs Healthcare Staffing Shortage Task Force and the union's ongoing effort to improve our nation's healthcare system and the working conditions our members endure. It was informed by months of work by AFT's Healthcare Program and Policy Council, roundtable discussions between clinicians and policy experts, surveys of healthcare members, and anecdotal discussions and workgroups composed of healthcare union leaders.

This report examines various components of the staffing shortage crisis:

1. Barriers to Successfully Recruit and Retain the Needed Workforce.
2. Unsafe Working Conditions
3. Unsustainable Staffing Practices and Workload
4. Inadequate Compensation for Frontline Workers
5. Corporate Trends to Maximize Revenue and Decrease Cost
6. Insufficient Worker Voice and Trust

The staffing crisis in our nation's healthcare facilities is not some mysterious, intractable problem that we lack the tools to fix. Rather, given all that the nation's healthcare workforce endured through the pandemic and before, it is a completely understandable; and with a commitment from healthcare employers to put patients and their workforce above maximizing revenue, it is correctable. This report includes a menu of strategies that can be used to improve our nation's healthcare facilities and concrete examples of where they have been successfully used. It is intended to help frame the national discussion about the staffing crisis and to provide a road map to fixing the chronic problem.

Section 1: The Recruitment and Retention Problem

"So many nurses are shorthanded. It's critical to resupply as people leave the profession."
—a healthcare worker in Connecticut

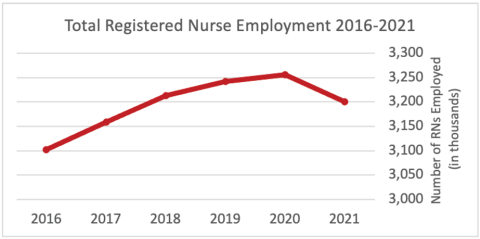
"When we circulate people out of nursing, we lose a lot of brain power."
—a healthcare worker in New York

"We are critically short of nurses and ancillary staff"
—a healthcare worker in New Jersey

The Great Resignation: Healthcare Workers Are Leaving Their Jobs in Record Numbers

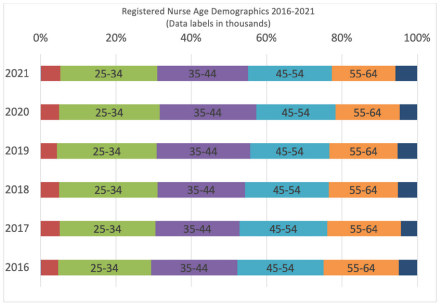
Almost universally, AFT leaders are hearing the same thing from frontline workers. Members working in already understaffed facilities are seeing their colleagues leave faster than they can be replaced.

These trends are not only anecdotal. In 2021, the U.S. Department of Labor Bureau of Labor Statistics (BLS) reported 55,000 fewer RNs employed than in 2020. This was the first decrease in total RN employment in more than five years.



Source: BLS 2016-2021

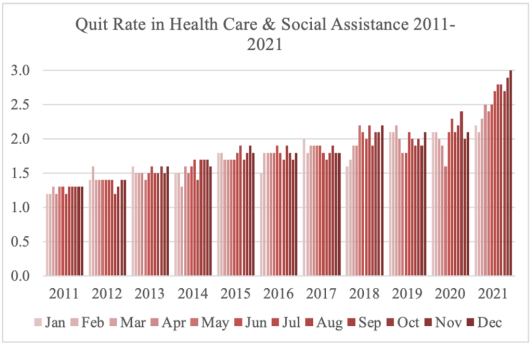
In this same year, the median age of RNs increased for the first time in more than five years, from 42.6 to 43.1. Looking more closely at the age demographics, we clearly see that this was driven by a reduction in total employment of RNs under the age of 44. Further, in 2021 there were 100,000 fewer RNs under the age of 44 than in 2020. This represents a significant reversal from the consistent trend of these workers making up a greater share of the RN workforce each year from 2016 to 2020.



Source: BLS 2016-2021

Looking at the rate of people quitting jobs in the healthcare and social assistance sector over time, we see just how historic this moment is.

In 2021, the healthcare and social assistance sector saw its highest quit rate in the last decade. In the graph below, we see the quit rate steadily increasing over the last decade until 2021 when it spikes to a record high at 3.0. In other words, a quit rate of 3.0 means that for every 100 workers in this sector, three quit their jobs in December 2021.



Source: BLS Job Openings and Labor Turnover Survey (JOLTS) data, 2011-2021

Workers represented by these numbers may have moved to a different employer in the healthcare industry, may have moved to a different segment of the industry, or may have left the industry altogether. BLS specifically excludes retirements from its calculation of the quit rate.

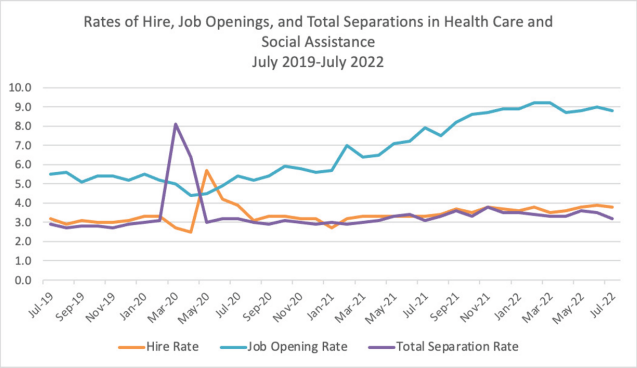
COVID-19 Has Exacerbated and Expedited the Staffing Crisis

In the wake of the COVID-19 pandemic, more and more healthcare workers have reported they were considering leaving their jobs or their professions altogether. A healthcare worker in Connecticut links this directly to short staffing, saying "You can only take care of so many people effectively. This is a recruitment/retention issue. Who's going to want to go into work when it's going to be horrible?"

In a February 2022 poll, 23 percent of healthcare workers—nearly 1 in 4—said they were likely to leave the healthcare field soon.

[3] While many factors could influence an individual worker's choice to leave, one cannot deny the overall impact of the pandemic on rates of workers leaving.

National data reflects the daily experience of our members too. Data from the Job Openings and Labor Turnover Survey (JOLTS) from the Bureau of Labor Statistics from March 2019 to October 2021 is demonstrative. The clearest inflection point happens in March 2020 when the World Health Organization declared COVID-19 a global pandemic. In this month, there is a drop in rates of job openings, hiring and people quitting their jobs. From this we know that the significant spike in the total separation rate in March was not driven by people quitting their jobs, but rather by layoffs and other factors.



There is also a critical second inflection point in the first months of 2021, when rates of job openings and quits begin to rise. Although it is impossible to attribute this increase to any single factor, the availability of vaccines and the loosening of pandemic restrictions present two logical explanations and ones that frontline stories support.

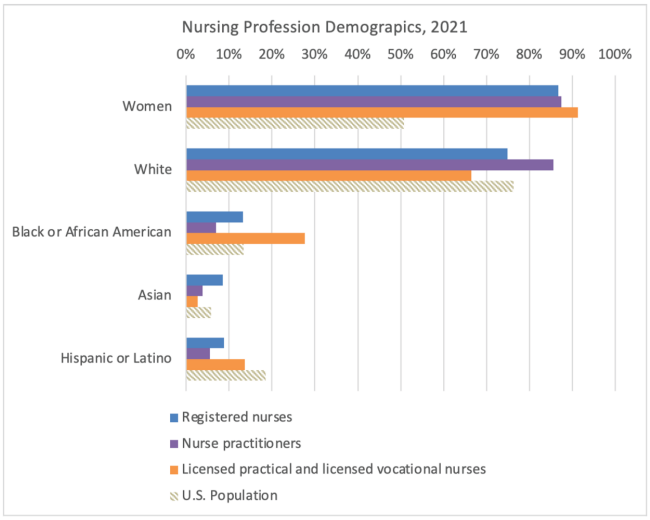
The "Great Resignation" comes as the nation's population ages and grows more diverse, requiring more workers in the health sector. However, in 2021, we see that employers in this sector are only able to hire at about the same rate as workers leave. Yet, we see the rate of job openings continue to increase because of this growing need as the population expands and ages, leaving our healthcare facilities with projected staff shortages.

Of course, when healthcare workers leave their employers, they do not immediately lose the skills to be healthcare workers. Regardless of whether a person quits to pursue other, less-taxing professional opportunities requiring their qualifications, or they leave the sector altogether, the imperative for our healthcare facilities is to recruit and retain their workforce. Doing so requires deep industry reflection on why their facilities have become such undesirable places to work and how to fix the crisis they have created.

It Is Time to Improve Diversity, Equity and Inclusion in the Workforce Through Targeted Recruitment and Training

As our nation's hospitals remain understaffed and the demand for healthcare professionals rises, there is an opportunity to make considerable progress toward greater workforce equity, which is a key component of truly centering health equity as the nation's population continues to diversify. When the healthcare workforce reflects the populations it serves and operates with a deeper cultural sensitivity and understanding of their patients' life situations, patient outcomes improve. This, in turn, increases the comfort level of patients seeking care. [4]

As the graphs of BLS data show, minority healthcare workers are underrepresented; and as the complexity of the positions and the salaries increase, the diversity of the workforce decreases.



Source: BLS 2021

For instance, while people identifying as Black or African American make up 13% of the U.S. population, they make up only 7% of Nurse Practitioners, a higher paying role requiring more formal education than other nursing roles. This clearly demonstrates a lack of racial equity in the nursing profession, but it also demonstrates an opportunity to "right the ship."

Examples of Strategic Approaches

Deploy new strategies to increase diversity in the local healthcare workforce, such as addressing racism in healthcare workplaces; developing program models that expand career outreach programs in communities of color that are underrepresented in healthcare jobs; and developing a workplace equity score that tracks healthcare facilities' workforce diversity numbers, and how many workers from underrepresented communities successfully advance up the career pathway to higher paying positions; and regularly review equity in compensation differences based on gender, race, sexual orientation, disability and all other protected classes.

Strengthen the Pipeline By Coordinating and Expanding Model Programs

To "right the ship" and create a steady flow of new skilled workers to fill vacant positions, the healthcare pipeline and career pathways must be strengthened. The pathway should have multiple entry points to ensure that individuals have ample opportunity to join this workforce and to advance as high up the skill pathways as they desire.

To accomplish this, the sector must conduct targeted outreach, expand stackable credentials (professional credentials that can be lined up sequentially), provide affordable access to the required training programs and, where possible, accelerate the training process. To maximize the impact of currently uncoordinated healthcare education and training programs nationwide that serve people at various levels of education and training, a nationally coordinated strategy organized around specific projected shortages is required.

One cannot, however, simply pipeline their way out of the current staffing crisis. Until the healthcare sector addresses the deplorable working conditions, dangerous patient levels and inadequate compensation, it will be unable to attract and train new workers quickly enough to replace those who leave. New approaches must be implemented, and proven training models could be expanded.

Examples of proven training models that could be expanded include:

Union Negotiated Joint Labor-Management Training Programs—When labor and management work together to identify shortage areas and provide paid time off and financial support for workers to access the training they need, an individual healthcare facility can successfully grow its own workforce. The Ben Hudnall Memorial Trust is one example. Established in 2005 by Kaiser Permanente, the AFT-affiliated Oregon Federation of Nurses and Health Professionals, and a coalition of union bargaining partners, the trust creates "a culture that values and invests in lifelong learning and enhanced career development opportunities for represented employees." The trust provides a diverse portfolio of programs and services to support its workers, ranging from career coaching and academic preparation to professional credentials and academic degrees that an individual worker needs to advance in their career to higher-paying positions.[5]

Healthcare Professions Career and Technical Education (CTE) High School Programs—CTE programs are an invaluable way for students to have a head start on two- and four- year college programs and, in some cases, prepare students for immediate employment in some healthcare jobs that do not require a college degree. These programs are built upon rigorous and integrated instruction of academic and industry-specific content as well as work-based learning experiences like internships. Students receive not only a high school diploma but also have an opportunity to pass an industry-recognized certification or licensing examination that can lead to employment. In the healthcare sector, there are successful CTE programs, such as the one at Clara Barton High School in Brooklyn, N.Y. , staffed by AFT members, which offer curriculum concentrations in nursing, including a nursing assistant and practical nursing programs. Students in the nursing assistant program provide direct patient care under the supervision of a registered nurse. Graduates of both programs will be prepared to take the certification exam and begin entry-level employment upon graduation. Students in the practical nursing program can also go on to two- or four-year college programs to become a registered nurse.[6] Other programs around the county include dental assistant, dental lab technician, medical assistant, emergency medical technician and emergency medical responder, pharmacy technician and biotechnician assistant.

Healthcare Registered Apprenticeship Programs—A limited but growing number of healthcare apprenticeship programs have developed around the country for various healthcare job titles. These programs pair high-quality training with paid clinical experience to allow students to earn money while they gain the skills needed to be fully credentialed and hirable upon graduation.

Nursing Bridge Program—These programs allow current nurses to advance their careers by earning a higher-level nursing credential at an accelerated pace. The programs build on the candidate's existing nursing knowledge and allow them to work while enrolled. In select programs, there is also an option to test out of select courses. Bridge programs are available at all academic levels: associate, bachelor's, master's and doctoral degree programs. The programs require clinical experiences and placements, which are typically permitted to take place at the nurse's work site.

Accelerated Nursing Program: Non-Nursing Graduates—These program options have been gaining momentum. Baccalaureate program graduates with a non-nursing degree can enroll in an accelerated bachelor's or master's nursing program. These fast-track programs typically take 11 to 18 months to complete, including prerequisites (for the bachelor's program). The master's level program generally takes three years to complete. Participants receive the same number of clinical hours as their counterparts in traditional nursing programs, and they must meet rigorous admissions standards. Accelerated nursing programs are available in 49 states and the District of Columbia, the U.S. Virgin Islands and Guam.

RN Internships/RN Clinical Intern—Usually funded by a nursing program or healthcare facility, these programs give student nurses paid clinical experience while alleviating some of the work placed on RNs, nursing assistants and other healthcare positions. Working under a preceptor nurse, their duties can include evaluating patients' conditions; administering medication; and assisting patients with bathing, dressing and eating.

Nursing Residency Programs and Fellowships—These programs, collectively known as the ANCC Practice Transition Accreditation Program support RNs with less than 12-months of work experience (Nurse Residency) and experienced RNs (Nursing Fellowship) and newly certified advanced practice nurses transition into new practice areas. These programs are accredited by the American Nursing Credentialing Center (ANCC) and are recognized by the U.S. Department of Labor as industry-recognized apprenticeship programs.[7]

Remove Barriers to Entry by Expanding Student Loan and Repayment Programs That Incentivize Joining the Healthcare Sector

A 2019 analysis of data from the U.S. Department of Education found the average graduate of an associate degree in nursing (ADN) program held $19,928 in student debt. For graduates with a Bachelor of Science in nursing (BSN), the average debt was $23,711 and for graduates with a Master of Science in nursing (MSN), the average was $47,321.[8]

No effort to recruit talent into the healthcare workforce can be complete until the cost barriers for accessing and completing higher education and training programs are addressed.

The proliferation of costly for-profit nursing programs that have lower NCLEX (National Council Licensure Examination) passage rates than nonprofit nursing programs exacerbates the problem.[9] To obtain a nursing license, you must pass the NCLEX exam, which assesses the competency of nursing school graduates. Failure leaves the student in debt without the credential needed to obtain the employment to pay off the debt.

While there is no publicly available data on debt burdens or education costs for other healthcare titles, one can make some educated guesses based on the average cost of the level of education required for certain roles. For example, the average cost of an associate degree at a public institution is $21,900 and $57,254 at a private institution.[10] Many healthcare roles, including lab technicians, surgical technologists, radiologic technologists, and respiratory therapists, require an associate degree.

Healthcare job titles that do not require a postsecondary degree are also not free of cost barriers because many require certification programs. For example, a program to become a licensed practical nurse can cost as much as $15,000, and training to become a certified nurse assistant averages about $2,000.

Education Barriers Disparately Impact Communities of Color

Sixty-two percent of 2019 college graduates were burdened by student loan debt,[11] disproportionately impacting women and people of color. In fact, 58 percent of outstanding federal student loan debt is owed by women.[12] Compared with their white peers, Black borrowers have higher total debt burdens and higher monthly payments. Four years after graduation, 48 percent of Black borrowers owe 12.5 percent more than their original balance, while 83 percent of white borrowers owe 12 percent less than their original balance in the same time period.[13] This has a particularly large impact on racial equity in the healthcare workforce and is especially poignant for healthcare workers who have made unimaginable sacrifices during the COVID-19 pandemic.

The AFT Is Addressing Educational Barriers by Working to Improve the Public Service Loan Forgiveness Program (PSLF)—The AFT has been leading the effort to make PSLF available for more people working in public service roles. Employees who work full time (30 hours or more a week for eight or more months of the year) for a non-profit or government employer, can qualify for full forgiveness of their federal student loan balance after 120 qualifying payments. This includes most hospital and public health workers. During the Trump administration, this program was woefully mismanaged with workers' time credit not being applied correctly and their loan status wrongly placed into default. The AFT successfully sued the Trump administration. Through a year-long waiver, borrowers who did not previously qualify or who were denied were able to get credit for past payments and get on track for full forgiveness. When properly managed and promoted, and when healthcare professionals and other workers are given the necessary information, the program can be a powerful tool for recruiting and retaining healthcare professionals.

AFT Local Unions Are Working with State Legislatures to Strengthen the Pipeline and Lower Healthcare Workers' Student Debt

AFT-affiliated unions have been working with state legislatures around the country on targeted strategies that increase the pipeline. This includes the Oregon Nurses Association winning passage of the Nursing Workforce Omnibus Bill (H.B. 4003) earlier this year, which, among other provisions, creates a nurse internship license to augment the workforce and offers practical experiences for nursing students. AFT affiliates in New York have been working on the New York State Nurse Employment, Enhancement and Dignity Act (A. 7385/S. 6424) to provide hazard pay to nurses during a state disaster emergency, an annual tax credit for nurses, a student loan forgiveness program for nurses, and preferential school admission for nurses. The AFT-affiliated Alaska Nurses Association has been working on legislation (S.B. 10) to provide free or reduced tuition for essential workers who attend state-supported postsecondary educational institutions. The AFT-affiliated Washington State Nurses Association has been working with its Legislature on a bill (H.B. 1452) that expands scholarship programs for RNs' education.

Nurse Faculty Wages Need to Be Raised so That Master's-Level Nurses Can be Recruited, Allowing Nursing Programs to Accept More Qualified Students

All of the previously stated barriers to postsecondary education notwithstanding, the healthcare industry and policymakers must reckon with the reality that nursing education programs do not have the funding, facilities or faculty needed to address the workforce shortage. While similar dynamics may exist in other healthcare training programs, it is a particularly acute problem in the nursing profession. For instance, in 2019, nursing programs turned away more than 80,000 qualified applicants because the programs lacked the necessary resources to educate these individuals.[14]

According to 2020 data from the American Association of Colleges of Nursing, the average salary for a master's-prepared assistant professor of nursing is $79,444. A nurse with a master's degree on the other hand, has many other career options, including nurse practitioner where the average salary across specialties is $110,000, according to the American Association of Nurse Practitioners.[15]

One driving factor of the nurse faculty shortage is the student debt crisis. The average nurse with a master's degree who is carrying student debt has more than $47,000 in debt, with monthly payments more than $500.[16] Nurses who want to teach the next generation of nurses may be unable to afford to do so. This is especially true for nurses of color who are more likely to have student loans and more likely to have higher loan balances, according to national debt statistics.[17]

Examples of Strategic Approaches

- The U.S. Department of Health and Human Services Department's Health Resources and Services Administration should convene an emergency task force to develop a national healthcare workforce strategy. The task force should include the U.S. Department of Education, Department of Labor, and both industry and labor representatives. The AFT is uniquely positioned to provide strategic input because our membership includes healthcare workers, career and technical education program teachers, nursing program and other healthcare professional program faculty.
- Targeted financial aid and loan repayment programs should be expanded, including the National Health Service Corps and the Nurse Faculty Loan program.

Section 2: Working Conditions Need to Be Improved to Recruit and Retain More Healthcare Workers

"I remember thinking during the first surge, 'if we just make it through this with none of our members dying, we will be lucky.' We made it until the third surge when we lost a beloved RN from the OR. We had over 75 percent of our members testing positive at one point during this pandemic. Many members were seriously ill, hospitalized, and some are still recovering with long COVID-19 symptoms. I watched my co-workers develop post-traumatic stress disorder in real time."

—Sheryl Mount, Health Professionals and Allied Employees, New Jersey

Inadequate Staffing Leads to More Worker Injuries

The impact of inadequate staffing on the occupational safety and health of healthcare workers has not been adequately addressed. Although there is a growing body of evidence on the patient-safety risks associated with poor staffing, much more research is needed on workers' injuries and illnesses. One of the few studies that looked at the relationship between occupational injuries and staffing found that shifts with fewer nursing care hours per shift, lower RN skill mix, and a lower percentage of experienced staff had higher rates of needlestick injury.[18]

The California nurse-to-patient staffing ratio law offers an opportunity to evaluate the impact of staffing on healthcare workers' health and safety. One study found that registered nurses in California hospitals suffered 55.57 fewer illnesses and injuries per 10,000 RNs, a rate 31.6 percent lower than the rate in all other states. The reduction for licensed practical nurses was 38.2 percent.[19]

Workplace Violence Makes Hospitals One of the Most Dangerous Places in America to Work, and Enforceable Standards Are Needed to Protect Workers

"The amount of bullying and unprofessional treatment is pushing people out of the profession. The professionalism and respect we once had has gone to the wayside."

—a healthcare worker in New Jersey

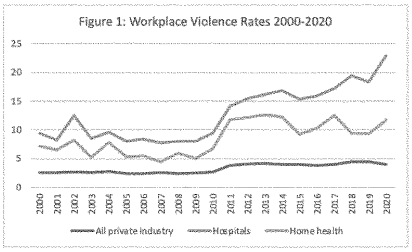
"I have experienced many assaults in my 17 years as an RN, including having a patient attempt to strangle me while his wife jumped on me and punched me. It is dangerous to work without enough staff in the psych unit. I developed PTSD when a patient held a gun to my chest in August 2020. I have taken care of many patients with PTSD, but I never realized how debilitating it is. I told management I was not OK–but they expected me to show up for my next shift."

—Carol Grant, AFT Connecticut

Violence to healthcare workers is a serious and growing problem exacerbated by inadequate staffing. Healthcare and social services workers experience 76 percent of all reported workplace violence injuries in the American labor force, and the number of actual incidents of workplace violence is likely to be much higher.[20] One study of staff working in psychiatric hospitals found that 85 percent of the incidents of workplace violence were never reported.[21]

Workplace violence in healthcare continues to rise in tandem with the staffing crisis. The rate of reported assaults grew by 144 percent in hospitals and 63 percent in home health agencies from 2000 through 2020. The rate of reported assaults increased by 95 percent in private sector psychiatric hospitals and substance

use treatment facilities between 2006 and 2020.[22] There were 87 workplace homicides from 2017 through 2019.[23],[24] Pandemic-related pressures on healthcare accelerated this trend—the rate of violence in hospitals increased by 25 percent in one year alone, from 2019 to 2020.[25]



Source: U.S. Bureau of Labor Statistics, Survey of Occupational Injury and Illness 2000-2020, Table R8

The Occupational Safety and Health Administration and National Institute for Occupational Safety and Health have both identified understaffing as a risk factor based on research from the 1990s.[26, 27] Descriptive studies of workplace violence demonstrate that poor staffing increases the risk of violence.[28, 29] Long wait times and inadequate attention can lead to escalating behavior in some patients and visitors. In some cases, workers are too busy to notice or respond. When there are too few workers available to safely restrain violent patients or when staff work in isolation, the risk of serious injury increases. More research is needed to investigate a causal relationship between understaffing and workplace violence. Two studies found that a higher staffing rate was associated with higher rates of assaults on staff and other patients in psychiatric units.[30, 31] Critics of the studies argued that the researcher was comparing reported incidents of workplace violence, not the actual number of assaults, noting the high probability of underreporting in poorly staffed facilities.

OSHA, NIOSH and researchers have emphasized the critical importance of workplace violence prevention programs that train frontline staff and managers to report all incidents of workplace violence and "near misses" in order to develop evidence-based prevention strategies.[32] Unfortunately, healthcare workers often do not report incidents of workplace violence because they find themselves blamed for their assault. More work is needed to identify the staffing issues at the root of workplace violence.

In 2016, the AFT led a coalition of unions petitioning OSHA for a workplace violence prevention standard for healthcare and social service workers. OSHA agreed to develop a standard, but the work stalled during the Trump administration. The Workplace Violence Prevention for Health Care and Social Service Workers Act was passed twice by the House of Representatives, requiring OSHA to develop an interim standard within one year and a final standard within 3.5 years. The bill was introduced in the Senate recently, but it has little chance of passing.

AFT Local Unions Have Been Working with State Legislatures to Make Their Workplaces Safer

AFT affiliates have been working with their state legislatures to create greater protections for healthcare workers. This includes the Montana Nurses Association; it has been working on A.B. 538, which requires reporting violence against healthcare workers. AFT affiliates in New York have been working on the Nurse Safety Work Act (A. 1639), which requires hospital staff to implement safety procedures when alone with a patient.

Examples of Strategic Approaches

Enact the federal Workplace Violence Prevention for Health Care and Social Service Workers Act

Fatigue Is Making Healthcare Jobs Unsustainable, and Healthcare Workers Need More Recovery Time

> *"Staffing was bad before, but now we have nine patients to a nurse, including patients being placed in hallways. We go 12 to 16 hours without a break to eat or drink. I have had nurses pass out because they haven't had time to eat or drink. We had 72 mandated overtime shifts in January 2022. It's particularly hard on night shift nurse; –we have had multiple cases of people working 36-hour shifts. People get so exhausted, they call out sick, which leads to more problems. At this point, financial incentives do not work, when people are this exhausted."*
>
> *—Sherri Dayton, AFT Connecticut*

Research on nurse fatigue has focused on the effects of shift work, including extended shifts and overtime, night shifts and rotating shifts, and insufficient recovery time between shifts. Chronic sleep deprivation has been linked to these factors. Chronic sleep deprivation causes fatigue; reduced cognitive function; increased risk of errors, such as needlestick injuries; unsafe driving; and patient safety errors in the short term. Chronic sleep deprivation can cause cardiac, gastrointestinal, and metabolic illnesses in the long run. Chronic lack of sleep has also been shown to foster proinflammatory activity and immunodeficiency, putting workers at higher risk for infection. [33]

More research on the relationship between understaffing and fatigue is needed. Nurses and other healthcare workers are under pressure to work overtime and accept additional shifts without adequate rest when facilities are understaffed. According to one study of hospital nurses working successive 12-hour shifts, the majority slept for less than six hours between shifts.[34] Other studies have found that people who work rotating shifts sleep up to four hours less when they work at night. [35]

In the past, research on the effects of mandatory overtime and extended work shifts aided in the passage of state laws prohibiting the practice. More research is needed to demonstrate how patterns of understaffing lead to increased demand for overtime. Additionally, research is needed to show the long-term mental health effects of fatigue and overwork.

Successfully Bargained Solutions

AFT local unions have been engaging in innovative bargaining to reduce fatigue among healthcare workers. This includes the Ohio Nurses Association, which secured "double back" language in its contract with Lima Memorial Hospital, requiring a certain number of hours between shifts. The ONA also achieved a ban on mandatory overtime at the hospital. The Oregon Nurses Association won double overtime for mandatory overtime at the Oregon Health & Sciences University, which puts financial pressure on the hospital to hire more nurses. Meanwhile, the Washington State Nurses Association secured an additional RN float position to ensure adequate coverage, allowing all staff to take meal and rest breaks. The Ohio Nurses Association won language in its contract with the Akron Medical Center allowing nurses to nap while on meal or rest break, showing how exhausted healthcare workers are.

AFT Local Unions Are Moving State Legislation to Reduce Fatigue at Work

AFT affiliates have been working with their state legislatures to reduce mandatory overtime. In New York, AFT affiliates have been working on A. 286A/S. 1997A, which imposes a civil penalty on an employer who requires a nurse to work more than their regularly scheduled work hours. The measure also provides the nurse with an additional 15 percent of the overtime payment from the employer for each violation. The Ohio Nurses Association was successful in passing legislation in 2021 that establishes a legislative study committee on RN staffing Issues to help legislators learn more about the issues and build support for better staffing.

Examples of Strategic Approaches

Ban mandatory overtime through federal and state legislation, regulation and collective bargaining agreements.

Inadequate Protections for Infectious Disease and Emergency Preparedness Risk the Lives of Healthcare Workers, and the Healthcare Industry Needs Greater Preparedness Requirements

> *"It was apparent that my hospital and others were not prepared. In April 2020, pregnant women started coming from New York into Connecticut hospitals to give birth. It was not until after we had COVID-positive moms and newborns that my hospital started testing these patients and giving N95s to labor and delivery staff. A psychiatric hospital in Connecticut was cited by OSHA for having no respiratory protection program at all after an outbreak among staff and patients."*
>
> *—Sherri Dayton, healthcare worker, AFT Connecticut*

> *"It is hard to put into words how hard it has been working as a nurse through the pandemic. I get emotional talking about what has transpired over the last two-plus years. I equate it to being like what I imagine a war zone must be like. Never in my 37 years of nursing have I been so horrified to be a nurse and at the same time so proud to be a nurse."*
>
> *—Sheryl Mount, Health Professionals and Allied Employees*

> *"COVID-19—you stole my life, wreaked havoc on my organ systems, wrecked my career, cost me thousands of dollars, made my sweet little boy cry in fear, almost shattered my soul, and took away something I can't get back, which is time. Time with my family, friends, loved ones and community. You robbed me of memories. You robbed me of the life, I loved and valued. You stopped me in my tracks, but you will NOT win."*
>
> *—Jessica, Alaska Nurses Association member, suffers from long COVID*

The healthcare industry's lack of preparedness for infectious disease outbreaks has had disastrous implications for staffing and for healthcare workers. For example, early in the pandemic, hospitals elected to save money by not stockpiling enough personal protective equipment (PPE). The needless exposure to infections contributed to the death of 3,600 healthcare workers.[36] Others left the bedside because they got sick or worried about infecting themselves and their loved ones. They were joined later by those who couldn't or wouldn't work in intolerable staffing conditions. Healthcare workers were lauded as heroes but treated as disposable by the healthcare industry.

Prior to the COVID-19 pandemic, annual outbreaks of seasonal influenza regularly swamped hospitals and created short-term staffing crises. Analysis of the handling of the H1N1 influenza pandemic in 2009 and the Ebola epidemic should have alerted the hospital industry to the imperative need to develop stronger infectious disease outbreak preparedness plans, including improving ventilation systems and stockpiling respirators.

The Centers for Medicare & Medicaid Services issued an emergency preparedness rule in 2016 but failed to include requirements that employers maintain robust PPE stockpiles. The Office for the Assistant Secretary for Preparedness and Response within the Department of Health and Human Services maintained the Strategic National Stockpile, but Congress and two administrations failed to adequately fund it.

The labor community first petitioned OSHA for an infectious disease standard in 2005, but the agency did not begin work on the standard until 2010 in the aftermath of the H1N1 outbreak. Labor unions petitioned OSHA for an emergency temporary standard early in the pandemic, but the Trump-appointed secretary of labor refused. The Biden administration agreed to issue an emergency temporary standard on COVID-19 for healthcare workers, but it was delayed until June 2021 and allowed to sunset after six months. The agency has promised to issue the permanent standard within six to nine months. Our efforts to influence the content of the standard are underway.

Examples of Strategic Approaches

Secure adequate pandemic preparedness protections in the law through means such as an OSHA infectious disease standard and updates to the Centers for Medicare & Medicaid Services emergency preparedness rule.

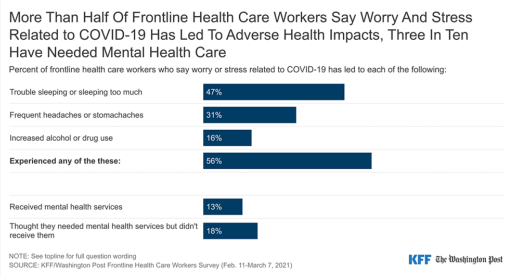
Addressing the Mental Health Crisis of Healthcare Workers Requires Funding for New Support Programs

Our nation's healthcare workforce's mental health is in shambles. For many years, healthcare workers, particularly those at the bedside, have been stressed and have suffered the moral injury of repeatedly being expected to make choices that transgress their long-standing, deeply held commitment to healing.[37] The scarcity of mental healthcare providers compounds the mental stress. Those who seek assistance are frequently unable to find providers or are placed on monthslong waiting lists.[38]

According to the U.S. Department of Health and Human Service's Health Resources and Services Administration and the Kaiser Family Foundation, there are over 5,800 designated mental health professional shortage areas in the country. More than 6,300 mental health practitioners, including adult psychiatrists, psychologists, social workers and mental health counselors, would be needed to meet the needs in the shortage areas.[3940]The pandemic has changed the rolling boil of the mental health crisis into an overflowing pot characterized by depression, anxiety and suicide. This crisis is deeply shaped by the unsafe patient limits that cause frontline caregivers to quit their jobs, leading to even more understaffing.

A survey conducted in March 2021 by the Kaiser Family Foundation (KFF) and the Washington Post asked healthcare workers whether they felt the worry or stress related to COVID-19 had a negative impact on their mental health. According to the survey, 61 percent said yes. The stress of the pandemic had clearly taken hold of the country's caregivers just one year into the pandemic. Three out of 10 people polled either received or thought they needed mental health services because of the pandemic. At least 49 percent said the pandemic had negatively impacted their physical health, as well as their relationships with family members (42 percent) and co-workers (41 percent). Many people reported difficulty sleeping, frequent headaches, increased use of alcohol or drug use, all of which were attributed to pandemic stress and

worry. According to another recent study, almost 40 percent of emergency healthcare workers screened positive for burnout, and nurses were significantly more likely to be experiencing burnout compared with attending physicians.[41]



Another recent study found that more than 70 percent of healthcare workers have symptoms of anxiety and depression, 38 percent have symptoms of post-traumatic stress disorder, and 15 percent have had recent thoughts of suicide.[42] As nurses and other healthcare professionals reach their breaking point, the deadly consequences of suicide have come to the forefront. This is what happened to Michael Odell, a 27-year-old travel nurse. Odell sought mental healthcare and medication after attempting suicide during the pandemic. For a time, Odell seemed to be fine but a year later, he left the hospital in the middle of his shift and committed suicide. Friends and colleagues in the nursing profession were shocked but understood how the pressures of seeing patients die every day, with little or no support and living with moral injury, drove him to do the unthinkable.

Although the height of the pandemic appears to have peaked, our healthcare workers continue to face mental health challenges. The staffing shortages put a tremendous amount of strain on tired and overworked bedside caregivers, who work long hours wondering if another wave of the pandemic will bring in more cases than they can handle. The workforce urgently needs support.

Examples of Strategic Approaches

- Increase funding, programming, and other legal protections at the federal level to support health professionals in the areas of mental health, burnout, and stress Management, including addressing shortages in the mental health professions.
- Work in partnering with other organizations and mental health experts devoting resources and activities aimed at developing clear demands for improving healthcare workplaces, ensuring mental health needs of the workforce are addressed, and to develop resources and education programming that provide meaningful support to healthcare professionals.

Section 3: Safe Staffing Requirements Are Needed

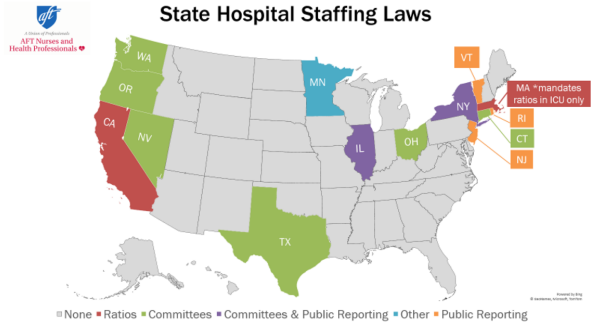
"Staffing requirements are key to stabilizing the workforce, reducing burnout and turnover; we are in a vicious cycle where years of inadequate staffing, made worse by the pandemic, are now leading to more and more people leaving."

—a healthcare worker, Washington State Nurses Association

One final question at the end of a Healthcare Staffing Shortage Task Force meeting: What do frontline healthcare workers need the most right now? The unanimous response was safe patient levels that put a limit on the number of patients that can be assigned to a single nurse. The appropriate limit varies depending on the department. For example, an ICU nurse can safely care for fewer patients than a med-surg nurse given the required level.

California is the only state that mandates safe patient levels for multiple hospital departments by law. Massachusetts mandates ratios only for ICUs by law and New Jersey mandates ratios for several departments through regulation of the hospital licensure process. A number of states also require healthcare facilities have staffing committees that include nurses. This is based on the idea that every hospital is different, and each should have the flexibility to develop staffing matrices that best fit their departments. Unfortunately, because they are often poorly enforced and lack a clear standard, staffing committees have not proven to be a successful strategy to achieve safe patient limits.

In contrast, safe staffing levels set by law in California have been shown to improve outcomes for patients and healthcare workers. (More on this in the "Unsafe Staffing Means Diminished Patient Outcomes" "Evidence of Patient Outcomes" section). Many experts argue that safe staffing levels are necessary because they provide hospital administrators and workers with a clear measurable standard. Setting the floor in law rather than collective bargaining agreements and staffing plans also allows for enforcement of these standards through state agencies rather than relying on hospitals to monitor their own compliance or on workers to file complaints after a plan has been violated.



Examples of Strategic Approaches

- Enact federal and state laws that mandate safe staffing levels and staffing ratios that include the whole care team and incorporate requirements into governmental regulations such as the Centers for Medicare & Medicaid Services Conditions of Participation.
- Include safe staffing levels in collective bargaining agreements.

Public Reporting Alone Is Not the Solution

The requirements for public reporting on hospital staffing levels vary greatly across the country, ranging from posting a daily staffing plan in plain view of patients at a hospital to public disclosure to a state agency. Public disclosure and other tools for transparency are important components of staffing solutions, but there is little evidence that reporting requirements alone directly improve staffing levels. [43] It is unrealistic and unfair to expect the public to possess sufficient industry knowledge to connect staffing levels to patient outcomes. Finally, while disclosure is an important part of enforcing safe staffing standards, it can't be the only way to keep patients safe.

Successful Collective Bargaining Strategies

AFT-affiliated unions around the country have been trying a variety of strategies at the bargaining table to reduce unsafe patient levels. For example, the Ohio Nurses Association at the Ohio State University Medical Center won safe patient staffing levels for its workers, including a nurse-patient ratio in the medical-surgical unit of 1:4, while the nurse-patient ratio for the critical care unit in the emergency department is 1:2. The nurses at OSUMC are now empowered to challenge patient care assignments that are unsafe because they exceed the established ratio. While nurses occasionally flex up to accommodate additional patients, it is rare and is only done when the nurse can safely care for all their patients. The Montana Nurses Association won important language at Deaconess Hospital that "recognizes the professional responsibility of nurses" and empowers nurses "to accept or decline overtime assignments based on their self-assessment of ability to provide safe care."

AFT Local Unions Around the Country Have Been Working on State Staffing Legislation

AFT-affiliated unions nationwide have been working with their state legislatures to require increased staffing levels in their facilities. This includes the Health Professionals and Allied Employees in New Jersey, which has been working on S. 304 that would establish minimum RN staffing ratios for hospitals and ambulatory surgery facilities and certain Department of Health facilities. The Washington State Nurses Association worked on H.B. 1868 during the recently concluded state legislative session, which would create RN staffing ratios for acute care hospitals; it also would also address overtime, meal and rest break issues, and enforcement. AFT Connecticut worked with its state Legislature last year on S.B. 1, which includes safe staffing requirements. AFT-affiliated unions in New York have been working on S. 1032/A. 2954, which establishes minimum nurse-to-patient ratios.

AFT-affiliated unions have also been pursuing state legislation to require staffing committees. For instance, in New York, our unions won language in their 2019 state budget that requires the Department of Health to study how staffing enhancements and other initiatives can improve patient safety and care. AFT locals in New York have been working to curtail mandatory overtime with S. 6311, originally introduced in 2019.

Unsafe Staffing Means Diminished Patient Outcomes

Most critically, unsafe patient levels for healthcare workers have been linked to poorer patient outcomes, including higher likelihood of death. Decades of research have established a major consensus among healthcare and workforce researchers that staffing ratios address these issues.

When AFT leaders hear from members about unsafe staffing, the first concern is never, "This makes my job more difficult." The biggest concern is always, "My patients aren't safe."

Every day, healthcare workers are forced to make impossible decisions due to unsafe staffing. Do they review the discharge instructions with a patient or respond to the flashing call button? Do they help a patient get to the bathroom safely or get another patient their medication on time? These are real decisions with real consequences for patient safety and having to face them every day all but guarantees workers will suffer moral injury.

Research reflects the impact of unsafe staffing on patient outcomes. Each additional patient added to the average nurse's workload on a med-surg unit increased each patient's chance of 30-day mortality by 16 percent.[44] In med-surg units, each additional patient per nurse was associated with a 5 percent lower likelihood of surviving in-hospital cardiac arrest.[45] Patients were 63 percent less likely to be readmitted within 30 days in hospitals where staffing in pediatric units was in line with the staffing limits (4:1) set in California state law.[46] Two-thirds of California staff nurses said the ratio law makes them more likely to stay at their jobs, and 74 percent say it has improved the quality of care in the state. [47]

Outsized Use of Staffing Agencies: A Symptom of the Broken Labor Market That Needs Greater Oversight

> *"It's difficult to depend on people when there are emergencies and crises when you don't know the names of the traveling nurses because they are brought in and leave so quickly."*
>
> *—a nurse in New York state*

> *"When you have a few travelers on a unit, they can definitely help augment staffing and help with an isolated crisis, but what we're seeing are units that are really dominated with travelers. Then for those units that are short, we also have a float pool, so there aren't regular staff; on specialty units, it's a particular problem."*
>
> *—a nurse in Ohio*

> *"When 70 percent of the staff are travelers and 30 percent are home staff, that is not good for continuity, for the history and the culture of the facility."*
>
> *—a nurse in Montana*

With healthcare worker shortages and increasing patient levels during the COVID-19 pandemic, hospitals and health systems have begun turning more to healthcare staffing agencies. Though these agencies are not new to the healthcare landscape, rapidly escalating rates and accusations of price gouging have thrust them to the forefront of public debate over the cost of healthcare.

Many reports on staffing agencies sensationalize the amount paid to health professionals in these travel roles. While it is certainly true that these workers have been able to demand significantly higher pay during a public health emergency, the headlines frequently overlook the windfall for the staffing agencies that employ these workers.

A November 2021 analysis by Staffing Industry Analysts projected revenue for healthcare staffing agencies to grow to nearly $25 billion—three times the level it was in 2011. But the study also notes this industry was experiencing rapid growth even before the pandemic. From 2009 to 2019, revenue tripled for the healthcare staffing industry, following larger economic trends toward gig work. [48]

Traveling healthcare workers are a valuable addition to a hospital's care team in many situations, including bringing workers with specialized skill sets into rural and underserved areas. Staff nurses and health professionals work alongside them, often exchanging valuable insight. The problem arises when hospitals and health systems stop investing in recruiting and retaining staff nurses and health professionals and the use of temporary workers becomes a more expensive replacement rather than a supplement.

In a 2022 report, the American Hospital Association evaluated the cost of the pandemic for hospitals, including the increased money spent on temporary workers through staffing agencies. According to data cited in this report, travel nurses now account for a much larger portion of total hours worked by nurses in hospitals. In January 2019, travel nurses accounted for 3.9 percent of total hours worked by nurses in hospitals. In January 2022, they accounted for 23.4 percent.[49]

As hospitals have relied more heavily on staffing agency workers, labor costs have skyrocketed. The AHA report also cites data showing a 213 percent increase in rates charged by staffing agencies between January 2019 and January 2022. As a result of increased prices from staffing agencies and hospitals' increased reliance on them, hospital labor expenses per patient at the end of 2021 were 36.9 percent higher than pre-pandemic levels.[50]

Related to staffing agencies and efforts of the healthcare industry to surge nursing services as needed are efforts to enact the Nurse Licensure Compact. States that join the compact agree to recognize the nursing license issued by any other compact state. However, the multistate license scheme, while sacrificing state-specific nursing standards such as continuing education requirements, has not alleviated the staffing crisis in our nation's healthcare facilities.

The nurse labor market in our country has been broken. Hospitals have had to scramble to hire nurses in a time of public health emergency because they used lean staffing models prior to the pandemic. Every hospital competing for the same limited pool of nurses at the same time drove up wages. Coupled with years of deteriorating working conditions and lack of fair compensation, many nurses quit their staff nursing position to follow the money.

Some, frustrated with their working conditions, are undoubtedly trying to cash out before they leave the hospital industry. Many have been able to accept positions at nearby hospitals. This has resulted in staff nurses working side by side with travelers (when the department is not staffed entirely by travelers) who make two and three times as much as staff nurses do for the same work.

As a result, more staff nurses are quitting and taking traveler positions. This is clearly an unsustainable labor market. Instead of complaining of the high rates charged by staffing agencies, hospitals should accept responsibility for creating a labor market in which dedicated staff are undervalued and underpaid; hospitals should reduce pay disparities and improve working conditions.

Exploitation of International Workers

The dark underbelly of international staffing agencies, where some agencies engage in nothing short of international labor trafficking, is one of the most insidious components of the staffing agency market. Many of these agencies require nurses to sign exploitative employment "contracts" with provisions that are so restrictive they are akin to indentured servitude. These contracts limit the mobility of international nurses' labor.

Some international nurses have been denied the wages they have earned alongside hospital staff because they are unaware of American labor protections, such as overtime laws. These contracts often include exorbitant financial penalties for a "breach of contract," including early termination. Workers who are trapped under these conditions are unable to report illegal labor practices and unsafe working conditions. Unfortunately, instead of these nurses being protected by labor law, staffing agencies have successfully sued for breach of contract and been able to garnish a nurse's future wages. While increasing the number of international workers is only a small part of the solution to the labor crisis in healthcare, special care must be taken to identify bad actors who exploit these workers. We must also recruit ethically from other nations, taking care not to extract labor desperately needed in those nations.

Examples of Strategic Approaches

Enact state legislation requiring staffing agencies to be specifically licensed by each state they operate in, publicly disclose their contracts with healthcare facilities, their employment contracts, their spending, who is working where, as well as require that at least 80 percent of their spending goes to direct patient care, and that they will be disbarred if they have been shown to violate state or federal labor laws.

AFT Local Unions Have Been Winning Contract Language That Puts Guardrails on the Use of Travel Agency Nurses

Before the pandemic, AFT-affiliated unions had been successfully bargaining language that limited their employers' use of travel nurses. The Washington State Nurses Association, for example, was successful in having the University of Washington Medical Center declare in their agreement that it "is the intent of the University of Washington Medical Center to minimize the employment of agency nurses." The Ohio Nurses Association successfully bargained with the Cuyahoga County District Board of Health that any "substitute or temporary nurse will not be used to avoid filling any vacancies." The Oregon Nurses Association successfully got the Sacred Heart Medical Center in Eugene, Ore., to jointly review the staffing pattern and use of per diem and other nurses in a unit and shift to determine whether additional regular positions/hours should be posted.

Section 4: Compensation of Healthcare Workers Needs to Be Increased

The healthcare industry as a whole was worth a staggering $8.45 trillion in 2018[51] and accounted for more than 19.7 percent of total U.S. gross domestic product in 2020.[52] Combined with the social services sector, in 2018 it was the largest employer in the country with over 20 million employees and more than $1 trillion in annual payroll.[53]

The compensation package for people at the top, including hospital executives, reflects this. However, the reality for the people who provide the direct care, provide food for patients, keep the facilities clean and hygienic, and otherwise support the operation of our nation's healthcare facilities is far different; and they are increasingly discovering that their wages aren't worth their working conditions.

While hospital CEOs earn an average $600,000 annually, the true compensation differential at specific facilities can be much greater. For example, in 2018, the CEO of Kaiser Permanente, a large nonprofit health-

care system, made nearly $18 million. In 2017, the top 10 highest-paid nonprofit health system executives earned $7 million or more. Even the bottom 25 percent of nonprofit hospital CEOs enjoyed annual compensation of about $185,000.[54]

In contrast, other healthcare professionals make significantly less:

2021 National Average Salaries for Healthcare Workers

Pharmacists	$ 125,690
Physician assistants	$ 119,460
Nurse practitioners	$ 118,040
Physical therapists	$ 92,920
Occupational therapists	$ 89,470
Registered nurses	$ 82,750
Respiratory therapists	$ 68,190
Clinical laboratory technologists and technicians	$ 56,910
Licensed practical and licensed vocational nurses	$ 51,850
Medical assistants	$ 38,190

Source: U.S. Bureau of Labor Statistics

The gap is only wider for those hospital employees whose jobs do not require specialized degrees, such as janitorial and kitchen staff, and medical-records personnel. For instance, the Lown Institute found that the ratio of CEO wages to the wages of these workers ranges from 26:1 to 2:1.[55]

	Hospital CEO Compensation per hour, on average (range)	Hourly Worker Wage on average (range)	Ratio of CEO wage to other workers on average (range
Top 50 ranked hospitals for pay equity	$65 ($22 - $104)	$30 ($17 - $45)	2:1 (0.8 – 2.7)
Bottom 50 ranked hospitals for pay equity	$923 ($458 - $3,289)	$34 ($21 - $61)	26:1 (18.9 – 60.2)

Source: Lown Institute Hospitals Index

To successfully recruit and retain staff, the healthcare industry must fix its compensation gap.

Examples of Strategic Approaches

Conduct compensation surveys on a recurring basis and raise entry level salaries for all hard-to-fill positions, precepting, mentoring and clinical advancement; and develop meaningful steps increases and retention bonus targeting mid-career professionals who are leaving hospital employment in record numbers.

Section 5: Corporate Trends

"At the end of the day, maintaining the budget is a bigger priority for employers. They are willing to talk the talk and not walk the walk when push comes to shove. This is a huge problem."

—a healthcare worker in Ohio

"Stop treating staff as something you can cut out to its lowest common denominator instead of treating staff as an asset."

—a healthcare worker in New Jersey

Driven by an insatiable desire for income, hospitals and health systems have systematically undervalued and underinvested in the healthcare workforce. While executives enjoy multimillion-dollar compensation packages, healthcare workers have been forced to do more with less. Lean staffing models that rely upon on-call, mandatory overtime, and travel nurses to flex staffing at peak census levels have resulted in dangerous patient loads, which stretched many healthcare workers beyond their limits long before the pandemic.

Reconfiguring Care Models Should Be Driven By Patient Outcome Standards

Following the adage "never let a good crisis go to waste," the healthcare industry has seized upon the COVID-19 pandemic to advance new cost saving strategies. One little-noticed provision of the CARES (Coronavirus Aid, Relief and Economic Security) Act gave the Centers for Medicare & Medicaid Services the authority to waive the requirement that hospitals provide 24-hour nursing services.

While this currently applies to only a limited total number of patients, the geographic footprint of these waivers is quite big with 206 hospitals run by 92 systems spanning 34 states have received temporary waivers to run what they call "hospital in the home" and "hospital without walls" programs. These models may foretell the future of care delivery, as evidenced by last year's announcement by Kaiser Permanente and the Mayo Clinic of a $100 million investment and joint partnership with at-home acute care company Medically Home.

Removing a patient from the hospital setting maximizes profit in the hospital industry by eliminating the need for ancillary services such as food services and environmental services and 24-hour nursing services. Instead, patients will care for themselves, and the hospitals will rely on occasional visits from other (typically lower-skilled and less-expensive) healthcare professionals, such as emergency medicine technicians or those employed by home health agencies. This does not address who is responsible for maintaining and monitoring the remote equipment, which is typically handled by a technician in the hospital.

Other "innovations" in healthcare include the "virtual ER," which allows doctors from hundreds of miles away to visit a hospital emergency room through webcam and speaker; the application of artificial intelligence (for example, to diagnose illnesses); and task automation.

There is also increased pressure, often driven by the healthcare industry, on scope of practice—essentially who is allowed to do what. In some instances, expanding scope of practice for a given discipline makes sense, such as allowing a highly trained advanced practice registered nurse to work independently and provide much-needed clinician care in rural America. However, expanding the scope of practice for less-skilled healthcare practitioners only to save money for the employer can impair the quality of treatment provided to patients. These decisions should be driven by increasing access to high-quality healthcare, and not from cost considerations as the healthcare industry tries to find new ways to increase revenue.

By investing in and expanding such programs, the healthcare industry shows that rather than trying to solve the staffing crisis, it is instead looking for ways to deliver cheaper care. To put it bluntly, the industry is sacrificing patient care to save money. Instead of degrading the standard of care, we would all be better served by appropriately staffed healthcare facilities.

Examples of Strategic Approaches

Secure federal and state protections for scope of practice and develop new patient care quality metrics for care delivered remotely that guide deployment and reimbursement levels.

A System That Values Safety and Accountability and Protects Healthcare Workers' Professional Practice Is Needed

Healthcare is a high-stakes environment with incredibly complex systems on both the clinical and the business sides. Factors like the evolution of different models of nursing care, reimbursement-driven documentation systems, and advances in research and treatment mean incessant change for direct-care clinicians.

The criminal conviction of a Tennessee nurse in 2022 following a deadly medication error sent chills throughout the nation's healthcare workforce. At a time when healthcare professionals feel beaten down and abandoned by their employers, there is now a great deal of anxiety about their personal liability if they make mistakes, which are more likely when they operate in unsafe facilities and manage unsafe patient levels. A renewed focus on just culture and other approaches that ensure administrators are held accountable is crucial. Not only does such fear of punishment hinder system improvement that requires reporting of errors, but it is also a further deterioration of working conditions. Exhaustion, mental health stress, fear of punishment and inadequate compensation make it hard to recruit and retain a workforce.

Examples of Strategic Approaches

Enact state and federal laws and regulations that protect the licenses, jobs and livelihoods of health professionals from unfair civil, administrative and criminal penalties that are the responsibility of an employer.

Consolidation Lowers Wages and Does Not Increase Quality

Consolidation has been a growing trend in the healthcare sector throughout the 21st century,[56] and the pandemic has only widened the economic gap between the large, prestigious healthcare networks and the remaining community-based hospitals and critical access hospitals, many of which are in rural America.

This widening gap leaves the community-based hospitals ripe for acquisition. During the peak of the pandemic, the finances of these two types of hospitals were legitimately stretched to the breaking point as they struggled to provide more expensive care, lost revenue from higher-yielding procedures that had been suspended and couldn't afford personal protective equipment (there were insufficient stockpiles of PPE). In fact, some facilities were merely days away from not being able to make payroll.

Meanwhile, the larger healthcare chains that have more diversified revenue streams were able to better mitigate the loss of revenue from the suspension of elective surgeries and had greater financial reserves

they could tap into to cover the growing costs. Indeed, during the peak of the pandemic, for-profit institutions like HCA Healthcare made record profits. Meanwhile, small, independent hospitals are now financially strapped and ripe for acquisition by larger, prominent systems, which have evolved into regional, multimarket systems. While advocates of consolidation often claim that it will ultimately improve the quality of care, there is no evidence to that effect. In fact, Dr. N.D. Beaulieu and Dr. Dafny Beaulieu found that, "Hospital acquisition by another hospital or hospital system was associated with modestly worse patient experiences and no significant changes in readmission or mortality rates. Effects on process measures of quality were inconclusive." Later, in 2020, E.S. Fisher and S.M. Shortell found that "greater financial integration was generally not associated with better quality."[57]

There is evidence however that consolidation imposes downward pressure on worker pay. Mergers that significantly reduce the number of hospitals in a local labor market have been found to lower wage growth for nurses and other skilled workers.[58] A recent study compared markets in which hospital mergers occurred between 2000 and 2010 to those that did not, and then looked at the effects on wages in the years afterward. According to the report "four years after these mergers greatly increased hospital concentration, nurses and pharmacy workers' wages were 6.8 percent lower, and skilled worker wages were 4 percent lower than they would have been absent the merger."

One possible explanation is that the hospital workforce has shifted toward lower-skilled, lower-wage workers within a category, for example from registered nurse to licensed practical nurse, following a merger.[59] This is consistent with "recent academic work has documented a negative relationship between labor market concentration and wages." [60] As a result, healthcare positions in those hospitals became less attractive and harder to fill.

The Unique Challenge of Rural Healthcare

Many of the healthcare workforce shortage areas identified by the Health Resources and Services Administration before the pandemic are located in urban and rural settings with significant percentages of minority and underserved residents.[61] This is particularly concerning because rural communities tend to have sicker, older and poorer residents than the country as a whole.[62]

Complicating the challenge of ensuring that rural communities have access to the healthcare professionals they need is the high rate of rural hospital closures that predate the pandemic. Since 2010, more than 120 rural hospitals have closed, 39 since 2018.[63] An additional 453 rural facilities can be considered "vulnerable" to closure based on performance levels, nearly one-quarter of all rural hospitals in the U.S.[64] Rather than closing, rural hospitals acquired by larger systems often have their services hollowed out as they become feeder facilities for larger hospitals located farther away. In Ohio, for example a number of rural labor and delivery departments have closed, forcing expectant parents to travel greater distances to give birth.

The community impact of rural hospital closures has been profound. As Mark Holmes, Ph.D., of the University of North Carolina found, "Rural hospitals are often an anchor institution, providing not only needed healthcare, but also a significant portion of jobs and billions of revenues in purchasing goods and services from other businesses. As a major employer in rural areas, hospitals and their closures have tremendous impacts on the economies of already vulnerable communities."[65]

Examples of Strategic Approaches

Increase oversight of merger and acquisitions practices in the healthcare industry, including examining the impact on patient access to quality care through the U.S. Federal Trade Commission, U.S Department of Justice and the Centers for Medicare & Medicaid Services, as well as greater state-level oversight.

AFT-Affiliated Unions Have Been Working on Aggressive Legislation to Curtail Corporate Practices in Healthcare

For example, the Oregon Nurses Association won legislation (H.B. 2362) in 2021 that requires approval from the Department of Consumer and Business Services or the Oregon Health Authority before any mergers, acquisitions, contracts or affiliations of healthcare entities and other entities if they are above a certain size in term of revenue or premiums. AFT Connecticut has been working on a variety of bills, including legislation to strengthen the state's Certificate of Need (CON) Program to prevent hospitals from unilaterally shutting down services like labor and delivery without going through the CON process. AFT Connecticut also has been working on legislation (H.B. 5575) that would establish community standards of health and hospital care for private for-profit hospital ownership in Connecticut as a means of prioritizing best-practice patient care over shareholder dividends and other unnecessary fee-for-service contracts. In New Jersey, the Health Professionals and Allied Employees is working on state legislation that would require contracts for sale of certain healthcare entities to preserve employee wages and benefits and honor collective bargaining agreements (NJ S. 315).

Section 6. Worker Voice and Trust

> *"It gives me hope that nurses haven't given up yet. Having a union, at least we have a voice and this week, we can speak up and have at least some protections against retaliation."*
>
> *—a healthcare worker in New Jersey*

Nurses ranked number one for the 20th year in a row in Gallup's annual public opinion survey on honesty and ethics in various professions in 2021. Following the COVID-19 pandemic, this same poll in 2021 found that 89 percent of Americans rated nurses' honesty and ethics as high or very high, a rating only surpassed by firefighters in 2001 following the terrorist attacks on 9/11.[66]

As frontline care providers, nurses and health professionals have invaluable insight into how each decision made by hospital administration impacts patient care. This expertise coupled with the trusted position healthcare workers hold in their communities should make it obvious to healthcare employers that healthcare workers are their greatest asset. Yet, too often health systems treat healthcare workers only as an expense to be controlled. When employers treat healthcare workers like disposable parts and not dedicated professionals, it is no surprise that workers experience burnout, hospitals experience turnover and, ultimately, patient care suffers.

Impact on Patient Outcomes

Once again, extensive research supports our frontline members' conclusions. Patients and staff both have better outcomes when healthcare workers have better work environments.

A 2019 meta-analysis of the association between nurse work environments and outcomes found that in hospitals with better nurse work environments, the odds of an adverse event or death were 8 percent

lower.[67] Additionally, a 2016 study found that in hospitals with poor nurse work environments, patients had a 16 percent lower likelihood of surviving an in-hospital cardiac arrest. The authors suggest that the link between safe staffing and in-hospital cardiac arrest survival might be especially strong because of the importance of quick intervention.[68]

When a nurse has an unsafe patient load or an otherwise unsafe work environment, the extra time it may take to get to a patient experiencing cardiac arrest could be fatal. AFT leaders hear devastating examples of these incidents from members who bear the consequences of unsafe staffing.

Meaningful Shared Governance Leads to Better Patient Outcomes

For nurses and health professionals, knowledge about patient outcomes does not only come from analytical research, but also from their direct care experience. It is not surprising then that research has also linked nurse involvement in meaningful shared governance with patient satisfaction.

The percentage of patients reporting they would definitely recommend the hospital was 14 points higher in hospitals where nurses were categorized as "most engaged" in shared governance based on an assessment of three measures in the Practice Environment Scale of the Nursing Work Index, according to a 2016 study. The same study found that nurses in hospitals where staff were most engaged in shared governance were 44 percent less likely to report overall quality of care was fair or poor and 48 percent less likely to report a lack of confidence that hospital management will resolve problems related to patient care.[69]

The best way to ensure a specific employer's shared governance is to make it part of a collective bargaining process that holds management accountable for including the perspective of direct care providers. The most successful model is the national partnership between the Kaiser Permanente systems and the AFT's Oregon Federation of Nurses and Healthcare Professionals and its other bargaining partners. Kaiser's shared governance is far from a panacea for all that ails the healthcare system, but it has proven to shape management decisions in a positive way, albeit not with complete employee satisfaction.

Committees Work Best When There Is a Robust, Meaningful Worker Voice

Knowing that nursing is the most trusted profession, that better working conditions for nurses result in better outcomes for patients, and that specifically involving nurses in shared governance increases patient satisfaction, hospitals and health systems should see obvious benefits to partnership. Robust staffing committees and other labor-management partnerships can pave the way forward, yet many committee structures serve only to silence workers' voices.

Union Contracts Are the Best Way to Ensure Workers' Voice

A collective bargaining agreement is the single most potent tool to ensure that healthcare professionals have a protected voice at their facility. CBAs create an accountable system where real discussion between labor and management takes place, giving workers more protection to speak up about difficulties. AFT-affiliated unions, like the Oregon Nurses Association, have successfully bargained for meaningful hospital committees. This includes Providence St. Vincent Medical Center where the ONA successfully bargained for clinical unit self-scheduling and the Oregon Health & Sciences University where ONA successfully bargained for unit-based nursing practices committees.

Examples of Strategic Approaches

The healthcare industry should respect the right of healthcare workers to form unions and immediately stop engaging in anti-union and union-busting tactics and, instead, develop labor-management partnerships that extend beyond the mandatory issues of bargaining.

Endnotes

[1] "Addressing Health Worker Burnout: The U.S. Surgeon General's Advisory on Building a Thriving Health Workforce (2022) https://www.hhs.gov/sites/default/files/health-worker-wellbeing-advisory.pdf

[2] https://www.aft.org/resolution/addressing-staffing-shortages-healthcare-workforce

[3] https://www.kff.org/report-section/kff-the-washington-post-frontline-health-care-workers-survey-toll-of-the-pandemic/

[4] Supplemental Health Care.(July 1, 2021) "5 Benefits of Fostering Diversity in Healthcare." Retrieved from https://www.shccares.com/blog/5-benefits-to-fostering-diversity-in-healthcare

[5] https://bhmt.org/who-we-are/

[6] https://www.clarabartonhs.org/apps/pages/index.jsp?uREC_ID=990599&type=d&pREC_ID=1306636

[7] https://www.nursingworld.org/organizational-programs/accreditation/ptap/

[8] Nerd Wallet analysis of 2019 federal student aid data from U.S. Department of Education: https://www.nerdwallet.com/article/loans/student-loans/average-nursing-student-debt

[9] https://www.insidehighered.com/quicktakes/2019/01/16/profit-nursing-graduates-more-likely-fail-licensure-test

[10] National Center for Education Statistics: https://nces.ed.gov/fastfacts/display.asp?id=76

[11] The Institute for College Access and Success: https://ticas.org/interactive-map/

[12] https://educationdata.org/student-loan-debt-by-gender

[13] https://educationdata.org/student-loan-debt-by-race

[14] https://www.aacnnursing.org/news-information/fact-sheets/nursing-faculty-shortage#:~:text=According%20to%20AACN's%20report%20on,%2C%20clinical%20sites%2C%20classroom%20space%2C

[15] American Association of Colleges of Nursing: https://www.aacnnursing.org/news-information/fact-sheets/nursing-faculty-shortage

[16] Nerd Wallet analysis of 2019 federal student aid data from U.S. Department of Education: https://www.nerdwallet.com/article/loans/student-loans/average-nursing-student-debt

[17] https://educationdata.org/student-loan-debt-by-race

[18] West, G., et al., "Staffing Matters—Every Shift: Data from the Military Nursing Outcomes Database Can Be Used to Demonstrate That the Right Number and Mix of Nurses Prevent Errors," *American Journal of Nursing*, December 2012; 112(12):22-27.

[19] Leigh J.P., et al., "California's Nurse-to-Patient Ratio Law and Occupational Injury," *Int Arch Occup Environ Health*, May 2015; 88(4):477-84. doi: 10.1007/s00420-014-0977-y. Epub 2014 Sep 13. Erratum in: Int Arch Occup Environ Health. May 2015 May;88(4):485-6.

[20] BLS, SOII, 2020, Table R8.

[21] Lillian Bensley, et al., "Injuries Due to Assaults on Psychiatric Hospital Employees in Washington State," *American Journal of Industrial Medicine* 31, no.1 (1997):92-99.

[22] BLS SOII, 2000, 2006, 2020, Table R8.

[23] Death on the Job: The Toll of Neglect, 2022 | AFL-CIO (aflcio.org)

[24] The Bureau of Labor Statistics did not report on the number of workplace homicides in healthcare and social assistance in 2020.

[25] BLS SOII, 2019, 2020, Table R8.

[26] Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, "Violence," *Occupational Hazards in Hospitals*, 2002. Violence_10-03 (cdc.gov)

[27] U.S. Department of Labor, Occupational Safety and Health Administration, 2015, Guidelines for Preventing Workplace Violence for Healthcare and Social Service Workers (osha.gov).

[28] Lipscomb, Jane, "Violence in the Health Care Industry: Greater Recognition Prompting Occupational Health and Safety Interventions." In: Charney W, ed. *Essentials of Modern Hospital Safety.* Vol. 3. Boca Raton, Fla.: Lewis Publishers, 1994, pp. 29–104. 4

[29] Lipscomb, Jane, "Violence in the Workplace: a Growing Crisis Among Health Care Workers." In: Charney W., Fragala G., eds. *The Epidemic of Health Care Worker Injury*, 1999, Boca Raton, Fla.: CRC Press, pp.163–165. .

[30] Staggs, Vincent S. "Injurious Assault Rates on Inpatient Psychiatric Units: Associations with Staffing by Registered Nurses and Other Nursing Personnel," *Psychiatric Services*. November 2015, 66(11):1162-6.

[31] Geller, Jeffery L., "Reported Versus Actual Assault Rates," . *Psychiatric Services*. March 2016; 67(3):358.

[32] Arnetz J.E., et al., "Preventing Patient-to-Worker Violence in Hospitals: Outcome of a Randomized Controlled Intervention." *Journal of Occupational and Environmental Medicine*. January 2017; 59(1):18-27.

[33] Trinkoff, A.M. et al., Nurses Are More Exhausted Than Ever: What Should We Do About It?" *American Journal of Nursing, December* 2021; 121(12)18-28.

[34] Geiger-Brown, J. et al., "Sleep, Sleepiness, Fatigue, and Performance of 12-hour Shift Nurses." *Chronobiology International*, 2012; 29(2)211-9.

[35] Trinkoff, A.M. et al., "Nurses Are More Exhausted Than Ever: What Should We Do About It?" *American Journal of Nursing, December* 2021; 121(12)18-28.

[36] https://khn.org/news/as-coronavirus-spreads-widely-millions-of-older-americans-live-in-counties-with-no-icu-beds/

[37] WebMD, Feb. 1, 2021, Kathleen Doheny," Moral Injury: Pandemic's Fallout for Health Care Workers,"https://www.webmd.com/lung/news/20210201/moral-injury-pandemics-fallout-for-health-care-workers#:~:text=Moral%20injury%20occurs%20when%20health,to%20healing%2C%E2%80%9D%20Dean%20says

[38] KFF. (Sept. 30, 2021). *Mental Health Care Professionals Shortage Areas (HPSAs)* Retrieved from https://www.kff.org/other/state-indicator/mental-health-care-health-professional-shortage-areas-hpsas/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D

[39] HRSA. (March 31, 2021) Designated Health Professional Shortage Area Statistics. Retrieved from file:///H:/Public_Mental%20Health%20mapping/BCD_HPSA_SCR50_Qtr_Smry.pdf

[40] KFF. (Sept. 30, 2021) *Mental Health Care Professionals Shortage Areas (HPSAs)* Retrieved from https://www.kff.org/other/state-indicator/mental-health-care-health-professional-shortage-areas-hpsas/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D

[41] https://onlinelibrary.wiley.com/doi/epdf/10.1111/acem.14519

[42] Chatterjee, R., (March 31, 2022) "A Nurse's Death Raises Alarm About the Profession's Mental Health Crisis." Retrieved from https://www.npr.org/sections/health-shots/2022/03/31/1088672446/a-nurses-death-raises-the-alarm-about-the-professions-mental-health-crisis?fbclid=IwAR0BQRhx5I7KVsmeX7URgDhppeRpJ6XJh7e-HlQErGRTfYU46pVLF5bNZMzY

[43] De Cordova et al., 2019: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6813777/pdf/nihms-1050516.pdf

[44] Lasater et al., 2021 https://pubmed.ncbi.nlm.nih.gov/34880022/

[45] McHugh et al., 2016 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4841621/pdf/nihms745619.pdf

[46] Tubbs-Cooley et al., 2013 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3756461/pdf/bmjqs-2012-001610.pdf

[47] Aiken et al., 2010 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2908200/pdf/hesr0045-0904.pdf

[48] https://www2.staffingindustry.com/Editorial/Daily-News/Healthcare-staffing-revenue-nearly-three-times-higher-than-three-years-ago-future-bright-Healthcare-Staffing-Summit-59628

[49] https://www.aha.org/costsofcaring

[50] https://www.aha.org/costsofcaring

[51] https://policyadvice.net/insurance/insights/healthcare-statistics/#:~:text=In%202018%2C%20this%20sector%20was,according%20to%20the%20latest%20estimates.

[52] https://policyadvice.net/insurance/insights/healthcare-statistics/#:~:text=In%202018%2C%20this%20sector%20was,according%20to%20the%20latest%20estimates.

[53] https://www.census.gov/library/stories/2020/10/health-care-still-largest-united-states-employer.html

[54] https://www.healthaffairs.org/doi/10.1377/forefront.20220208.925255#:~:text=A%202021%20report%20from%20the,were%20paid%20on%20average%20%24600%2C000.

[55] https://www.healthaffairs.org/doi/10.1377/forefront.20220208.925255#:~:text=A%202021%20report%20from%20the,were%20paid%20on%20average%20%24600%2C000.

[56] Beaulieu, N.D., Dafny, L.S., et al., "Changes in Quality of Care After Hospital Mergers and Acquisitions," *New England Journal of Medicine*, DOI: 10.1056/NEJMsa1901383, Jan. 2, 2020.

[57] Fisher, E.S., Shortell, S.M., et al., "Financial Integration's Impact on Care Delivery and Payment Reforms: A Survey of Hospitals and Physician Practices," *Health Affairs*, August 2020, 39:8.

[58] Prager, E., and Schmitt, M., "Employer Consolidation and Wages: Evidence from Hospitals," *American Economic Review*, February 2021, 111(2): 397–427, https://doi.org/10.1257/aer.20190690

[59] Prager, E., and Schmitt, M., "Employer Consolidation and Wages: Evidence from Hospitals," *American Economic Review*, February 2021, 111(2): 397–427, https://doi.org/10.1257/aer.20190690

[60] Prager, E., and Schmitt, M., "Employer Consolidation and Wages: Evidence from Hospitals," *American Economic Review*, February 2021, 111(2): 397–427, https://doi.org/10.1257/aer.20190690

[61] KFF. (Sept. 30, 2021). Mental Health Care Professionals Shortage Areas (HPSAs). Retrieved from https://www.kff.org/other/state-indicator/mental-health-care-health-professional-shortage-areas-hpsas/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D

[62] https://www.latimes.com/world-nation/story/2020-03-25/rural-coronavirus-hospitals-call-for-emergency-funding

[63] https://www.kff.org/coronavirus-covid-19/issue-brief/funding-for-health-care-providers-during-the-pandemic-an-update/

[64] National Rural Health Association, found at: https://www.ruralhealthweb.org/advocate

[65] Holmes, M.,Ph.D. (2022) "Rural Hospital Closure and Effect on Local Economies". Retrieved from https://www.ruralhealthresearch.org/projects/100002523

[66] Gallup, January 2022: https://news.gallup.com/poll/388649/military-brass-judges-among-professions-new-image-lows.aspx

[67] Lake, et al., 2019: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6615025/pdf/nihms-1024707.pdf

[68] McHugh, et al., 2016: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4841621/pdf/nihms745619.pdf

[69] Kutney-Lee, et al., 2016: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5117656/pdf/nihms-813280.pdf

A Union of Professionals

American Federation of Teachers, AFL-CIO
555 New Jersey Ave. N.W.
Washington, DC 20001
202-879-4400

Alternative Approaches to Ensuring Adequate Nurse Staffing

The Effect of State Legislation on Hospital Nurse Staffing

Xinxin Han, PhD, Patricia Pittman, PhD,† and Burt Barnow, PhD‡*

Objective: The objective of this study was to addresses the basic question of whether alternative legislative approaches are effective in encouraging hospitals to increase nurse staffing.

Methods: Using 16 years of nationally representative hospital-level data from the American Hospital Association (AHA) annual survey, we employed a difference-in-difference design to compare changes in productive hours per patient day for registered nurses (RNs), licensed practical/vocational nurses (LPNs), and nursing assistive personnel (NAP) in the state that mandated staffing ratios, states that legislated staffing committees, and states that legislated public reporting, to changes in states that did not implement any nurse staffing legislation before and after the legislation was implemented. We constructed multivariate linear regression models to assess the effects with hospital and year fixed effects, controlling for hospital-level characteristics and state-level factors.

Results: Compared with states with no legislation, the state that legislated minimum staffing ratios had an 0.996 ($P<0.01$) increase in RN hours per patient day and 0.224 ($P<0.01$) increase in NAP hours after the legislation was implemented, but no statistically significant changes in RN or NAP hours were found in states that legislated a staffing committee or public reporting. The staffing committee approach had a negative effect on LPN hours (difference-in-difference = −0.076, $P<0.01$), while the public reporting approach had a positive effect on LPN hours (difference-in-difference = 0.115, $P<0.01$). There was no statistically significant effect of staffing mandate on LPN hours.

Conclusions: When we included California in the comparison, our model suggests that neither the staffing committee nor the public reporting approach alone are effective in increasing hospital RN staffing, although the public reporting approach appeared to have a positive effect on LPN staffing. When we excluded California form the model, public reporting also had a positive effect on RN staffing. Future research should examine patient outcomes associated with these policies, as well as potential cost savings for hospitals from reduced nurse turnover rates.

Key Words: hospital staffing, nurse staffing legislation, nurse staffing mandate, staffing committee, public reporting

(*Med Care* 2021;59: S463–S470)

Improving quality and patient safety in hospitals have long been foci in the United States.[1] Empirical studies have shown that adequate nurse staffing is essential for the delivery of quality care and safe nurse working conditions, which in turn are associated with better patient outcomes.[2–6] As of 2020, 14 states had implemented some form of legislation to increase nurse staffing in hospitals.[7] The legislation includes 3 main approaches: (1) mandating minimum nurse staffing ratios in hospitals; (2) mandating a staffing committee substantially comprised of registered nurses (RNs); and (3) mandating public reporting of nurse staffing levels. Table 1 provides details of the current state nurse staffing legislation for all 3 approaches.

The staffing mandate approach establishes minimum nurse-to-patient staffing ratios for hospitals. So far, California is the only state that has mandated minimum staffing ratios for licensed nurses [RNs plus licensed practical/vocational nurses (LPNs)] in all hospital units (eg, critical care unit, general care unit, emergency department, transitional in-patient care unit), and the ratios are set specifically by type of patient care unit to reflect patient acuity.[7] The law allows hospitals in areas with low RN staffing to hire LPNs who provide basic nursing care and work under the supervision of RNs; 50% of the nurses can be LPNs for compliance with the law.[8] In 2014, Massachusetts became the second state to mandate nurse staffing ratios in hospital units, but the mandate only targeted RNs in intensive care units (ICUs).[7]

From the *School of Medicine, Tsinghua University, Beijing, China; †Fitzhugh Mullan Institute Health Workforce Equity, Milken Institute School of Public Health; and ‡Trachtenberg School of Public Policy and Public Administration, The George Washington University, Washington, DC.

X.H. was with the Fitzhugh Mullan Institute Health Workforce Equity at the George Washington University when this article was written.

X.H. is supported by the Shui Mu Tsinghua Scholar Program at Tsinghua University.

This work was not funded by any agency and all contents represent the authors' own views.

The authors declare no conflict of interest.

Correspondence to: Xinxin Han, PhD, School of Medicine, Tsinghua University, 30 Shuanqing Road, Haidian District, Beijing 100084, China. E-mail: hanxx@tsinghua.edu.cn.

Supplemental Digital Content is available for this article. Direct URL citations appear in the printed text and are provided in the HTML and PDF versions of this article on the journal's website, www.lww-medicalcare.com.

ISSN: 0025-7079/21/5910-S463

TABLE 1. Details of Current State Nurse Staffing Legislation, as of 2020

Type of Regulation	State	Year of Implementation	Statute	How Each State Requires Nurse Staffing	Link to Statute
Staffing mandate	California	2004	California Health and Safety Code Section 1276.4	Registered nurse and/or licensed practical nurse-to-patient ratio in all hospital units	http://law.onecle.com/california/health/1276.4.html
	Massachusetts	2014	Massachusetts General Law Section 111.231	Registered nurses-to-patient ratio in intensive care units	https://malegislature.gov/Laws/GeneralLaws/PartI/TitleXVI/Chapter111/Section231
Staffing committee	Oregon	2001	Oregon Revised Statutes Public Health, Housing, Environment Section 609.2	The committee consist entirely of direct-care registered nurses	www.oregonlaws.org/ors/441.162
	Ohio	2008	Ohio Revised Statutes Health-Safety-Morals Section 3727.51	At least 50% of the committee members must be direct-care registered nurses	http://codes.ohio.gov/orc/3727.51
	Washington	2008	Washington State Legislature Section 70.41.420	At least 50% of the committee members must be direct-care registered nurses	https://app.leg.wa.gov/rcw/default.aspx?cite=70.41.420
	Texas	2009	Texas Health and Safety Code Section 257.001	At least 60% of the committee members must be registered nurses	www.statutes.legis.state.tx.us/Docs/HS/htm/HS.257.htm
	Connecticut	2009	Connecticut Code Public Health and Well-Being Section 19a-89e	At least 50% of the committee members must be direct-care registered nurses	www.cga.ct.gov/current/pub/chap_368a.htm#sec_19a-89d
	Nevada	2009	Statutes of Nevada Section 449.242	At least 50% of the committee members must be licensed nurses and certified nursing assistant	www.leg.state.nv.us/nrs/nrs-449.html#NRS449Sec242
	Illinois	2009	Illinois Compiled Statutes Chapter 210 ILCS 85/Section 10.10	At least 50% of the committee members must be registered nurses	www.ilga.gov/legislation/ilcs/ilcs4.asp?DocName=021000850K10.10
Public reporting*	New Jersey	2004	State of New Jersey 214th Legislature (Act 2004 214 Laws)	The ratio of patients to number of registered nurses, licensed practical nurses, and certified nursing aides	ftp://www.njleg.state.nj.us/200/2005/S1000/964_I1.HTM
	Rhode Island	2005	Rhode Island Health and Safety Code 23-17.17-8	The number of registered nurses, licensed practical nurses and/or certified nursing assistants and the average number of patients upon which such staffing levels are based	http://webserver.rilin.state.ri.us/Statutes/title23/23-17.17/23-17.17-8.HTM
	Vermont	2005	The Vermont Statutes Health § 1854	The number of registered nurse, licensed practical nurse, and licensed nursing assistant full-time equivalent (full-time equivalent = 12 h worked during the shift as 1 full-time equivalent)	http://legislature.vermont.gov/statutes/fullchapter/18/042
	Illinois	2009	Illinois Compiled Statutes Chapter 210 ILCS 86/Section. 25	The number of registered professional nurses, licensed practical nurses, and other nursing personnel assigned to each patient care unit and nursing hours per patient day	www.ilga.gov/legislation/ilcs/ilcs3.asp?ActID=2466&ChapterID=21
	New York	2010	New York Public Health Law Section 2803-T	The ratio of patients per registered nurse full-time equivalents; the number of licensed practical nurses, nursing hours per patient; and as a percentage of patient care staff, the number of unlicensed personnel and as a percent of patient care staff	https://newyork.public.law/laws/n.y._public_health_law_section_2803-t

*Massachusetts, Washington, and Minnesota also publicly reported nurse staffing but this is not mandated by the legislation Washington amended the legislation to include public reporting in 2017 and enacted on January 1, 2019 to require hospitals to submit and post nurse staffing plans annually (Washington State Department of Health, Hospital policies, Available at: www.doh.wa.gov/DataandStatistics/HospitalStatistics/HospitalPolicies#WashingtonHospitalStaffingPlans).

The staffing committee approach requires hospitals to establish a committee that is composed of at least 50% RNs providing direct patient care and develop a nurse staffing plan that includes skill mix (usually measured as the ratio of RNs to total licensed nurse staffing, that is, RNs and LPNs) based on patient needs.[9] Unlike the staffing mandate approach that assumes all hospital settings are the same, this staffing committee approach, in theory, addresses staffing levels more appropriately by having frontline RNs participate in the planning process and taking into consideration skill mix as well as patient needs in a variety of settings.[10] As of 2020, 7 states, Illinois (2009), Oregon (2001), Washington (2008), Ohio (2008), Connecticut (2009), Nevada (2009), and Texas (2009), have legislated this approach.[7]

The public reporting approach provides staffing transparency to the public, which, in theory, allows consumers to choose higher staffed hospitals and puts market pressure on understaffed hospitals to improve their staffing ratios.[11] The premise of this approach is that consumers will seek out the information on nurse staffing and will use it when making decisions about where to seek care.[12] Five states, Illinois (2009), New Jersey (2004), Rhode Island (2005), Vermont (2005), and New York (2010), have legislated public reporting or disclosure of hospital nursing staffing for RNs, LPNs, and nursing assistive personnel (NAP, certified nursing assistant or equivalent unlicensed staff assigned to patient care units and reporting to nurses),[7] but there is variation in how these states require data to be presented. For example, Vermont, Illinois, and New Jersey specifically require hospitals to post the information in a place that is accessible to patients, and New York allows hospitals to provide information to the public upon request. There is also no consensus on how nurse staffing is measured both within and across states; the current staffing measures include hours per patient day, the nurse-to-patient ratio, the ratio of patient per nurse full-time equivalent (FTE), and the percent of total patient care staff. This absence of standardization may make communication to the public more complex. Although not legislated, 3 states, Massachusetts (2006), Washington (2019), and Minnesota (2014), also publicly reported hospital nurse staffing.[12]

The debate over whether and how to regulate nurse staffing in hospitals was a dominant concern during the last major nurse shortage (2000–2008). The argument against staffing mandates centered on whether the benefits, in terms of quality outcomes, outweigh the costs of complying with the standards.[13] As pockets of nursing shortages reemerge, the debate is once again front and center, and alternatives to staffing mandates continue to be considered.[14,15] The central policy question to date is whether there is an effective alternative to mandating staffing ratios in terms of increasing hospital nurse staffing. Understanding the effects of these laws on nurse staffing lays the foundation for future research on more long-term outcomes, including patient outcomes, costs, and possible trade-offs.

Literature on the effects of California's minimum nurse-to-patient ratio mandate is well established. A number of studies on California's mandates revealed a positive effect of the staffing mandates on RN staffing,[8,16–26] as well as on LPN staffing in hospitals with low nurse staffing at baseline,[20–25] although one study found no evidence of changes in the skill mix.[8] A recent study that evaluated Massachusetts' RN staffing ratio mandate found no evidence of an association of the mandate with increased RN staffing in ICUs.[27] In contrast, empirical evidence is very limited on the effect of the other 2 approaches—staffing committee and public reporting—on hospital nurse staffing. A descriptive study of Texas's staffing committee legislation found an increased trend in RN hours per patient day and a decreased trend in LPN hours per patient day following the implementation of the legislation.[9] Another descriptive study, of New Jersey's public reporting legislation, found a slight increase in the number of RNs assigned to patients during the postimplementation period.[28] Nonetheless, these descriptive studies only examined trends over time in nurse staffing before and after the legislation within a specific state; neither did they control for confounding factors nor compare staffing changes to other states.

In this study, we employed a quasi-experimental design with 16 years (2003–2018) of nationally representative hospital-level data from the American Hospital Association (AHA) annual survey to compare the effects of 3 types of staffing laws on different levels of nurse staffing in hospitals: mandates, staffing committees, and public reporting legislation. We included in this analysis not only RNs, but LPNs and NAP as well. LPN's education programs provide a certificate after about 1 year of community college, as opposed the RNs which require at least an associate degree to sit for the licensure test. Despite the lesser training, a more restricted scope of practice, and being paid less, in some settings, LPNs have been used as low-wage substitutes for RNs.[29] However, studies have shown that a lower skill mix (ie, higher proportion of LPNs) in hospitals was associated with worse patient outcomes, suggesting that they are not exact substitutes.[30–32] Although the use of LPNs has been declining over time in hospitals,[33] in California, studies show the downward trend was moderated under the nurse staffing mandate.[20–25] It is, therefore, important to ascertain what happened with LPNs in states that legislated the other 2 policies. In states with public reporting, the law explicitly requires hospitals to report LPN staffing, although the public may not be aware of differences between RNs and LPNs.

NAP assist RNs in patient care, which, in theory, allows nurses to delegate less skilled tasks and focus on more complex situations. However, studies in California have found that the number of nurse aides and orderlies in hospitals was slightly reduced after the mandate.[22,23] Hospitals in California may have cut NAP staffing as a cost-containment strategy to meet staffing requirements, essentially revealing another unintended consequence of the mandate.[34,35] While the effect is small, it is of concern because having more nurses on staff could lose meaning if their workload is expanded to cover the reduced support staff. Therefore, we also examined the effects of different types of nurse staffing laws on NAP staffing.

The objective of this study is to examine the effect of the alternative nurse staffing laws—mandating a staffing committee substantially comprised of RNs and mandating

public reporting of nurse staffing levels—on increasing hospital RN, LPN, and NAP staffing (measured as productive hours per patient day) in the United States. Our findings can inform the ongoing debates over how to regulate nurse staffing in hospitals and the effectiveness of these legislative alternatives to a mandate.

METHODS

Data Sources

Our primary data source was the 2003–2018 AHA annual survey. The AHA survey has been conducted every year since 1980, with a 75% response rate in recent years.[36] The AHA data provide information from responding hospitals on hospital-wide staff FTEs for various occupations, including RNs, LPNs, and NAP, as well as hospital characteristics such as ownership, number of beds, and teaching status. The database is one of the most reliable national longitudinal hospital data sources and has been widely used in prior nurse staffing studies.[8,20,21,24,25]

We obtained state-level data from the Bureau of Labor Statistics Occupational Employment Statistics Program[37] for the number of employed nurses and nursing assistants. We also obtained state right-to-work law implementation status from the National Conference of State Legislatures Web site; there are 27 states that implemented laws to prohibit union security agreements between employers and labor unions.[38] We used state identification to link the state-level data to the AHA data.

Staffing Measures

We measured staffing levels using productive hours per patient day. Hospitals reported the number of FTEs and the number of fulltime ($\geq$35 h) and part-time ($<$3 h) personnel who were on the payroll at the end of the reporting period. For missing data, the AHA provides estimated FTEs per hospital for nurses based on data in previous years and imputed values. We used the combined (reported and estimated) values for RNs and LPNs, as was done in a prior nursing study that used the AHA data.[8] Because the AHA data do not provide estimated FTEs for NAP, we followed the AHA's formula to calculate the number of FTEs for NAP (full-time +0.5×related part-time personnel), using the number of full-time and part-time personnel.[36]

We calculated labor hours using a standard conversion, where 1 FTE equals hours divided by 1768, representing productive hours for 1 FTE position per year.[39] We then divided the number of hours by adjusted patient days. Because the AHA data include both inpatient and outpatient staff, we also followed prior studies[8,25,39] and used the "adjusted patient days" measure, which adjusts outpatient visits using the ratio of gross outpatient and inpatient revenues.

Treatment and Comparison Groups

We defined "treatment" as the implementation of 1 of the 3 types of nurse staffing laws. We retrieved the legislation information from the American Nurse Association Web site[7] and reviewed relevant statutes for all treatment states. We divided treatment states into 3 groups: the state with mandated staffing ratios, which included only California; states that legislated staffing committees, Washington, Ohio, Connecticut, Nevada, and Texas; and states that legislated public reporting, New York, New Jersey, Rhode Island, and Vermont. A total of 35 states that did not legislate nurse staffing laws were allocated to the comparison group.

Five states (Massachusetts, Oregon, Illinois, Minnesota, and Maine) and the District of Columbia were excluded from this analysis because they either used $>$1 policy option or made modifications to the model that were unique. The Massachusetts' legislation mandated staffing ratios, bit only in ICUs. In addition, Massachusetts has a public reporting mechanism, although it is voluntary. Oregon enacted the staffing committee legislation in 2001, which is before our study period, and it then amended it in 2015 to grant additional authority to nurses on the committee.[40] Illinois legislated both staffing committees and public reporting.[7] In Minnesota, public reporting of staffing levels is voluntary, and our study examines mandatory public reporting. It is worth noting that we did not exclude Washington because it started public reporting in 2019.[12] Finally, the District of Columbia and Maine implemented staffing mandates in 2004 but later removed them.[7] Each of these cases undoubtedly has lessons in and of themselves, but they do not conform to our 4 comparison groups. Details of the legislation for each treatment state are provided in Table 1.

Analytical Approach

A total of 7389 hospitals (100,310 hospital-year observations) from 2003 to 2018 were included for the analysis. We first excluded 10,553 observations from the states (Massachusetts, Oregon, Illinois, Minnesota, Maine), the District of Columbia, and the US territories. We then excluded 27,935 observations for which the average daily census was $<$20 or the reporting period was $<$360 days, as these hospitals could operate differently. Last, we excluded 12,367 observations for hospitals operating nursing homes, identified as hospitals having at least 1 nursing home staffed bed because nurse staffing levels and patterns of these hospitals could be different.

After exclusion, our final sample contained a total of 5188 hospitals (49,455 hospital-year observations), including 427 hospitals (3810 observations) in the state that mandated staffing ratios, 1020 hospitals (10,230 observations) in states that legislated staffing committees, 324 hospitals (3045 observations) in states that legislated public reporting, and 3417 hospitals (32,370 observations) in states that did not have any nurse staffing legislation from 2003 to 2018. Details on hospital characteristics are provided in the Appendix (Supplemental Digital Content 1, http://links.lww.com/MLR/C315).

We employed a difference-in-difference (DID) approach to compare changes in hospital staffing in the state that mandated staffing ratios, states that legislated staffing committees and states that legislated public reporting to changes in states that did not implement any staffing legislation before and after the legislation was implemented. The DID approach allows us to disentangle the differences in outcomes between treatment and comparison states before the laws were

implemented and control for unobserved time-invariant factors that could have affected the outcomes.[41] For a description of DID approaches and the assumptions underlying them, see the studies by Wing et al[42] and Khandker et al.[43] The Columbia University School of Public Health summarizes the assumptions underlying DID as: treatment/intervention and control groups have parallel trends in the outcome; composition of intervention and comparison groups is stable for repeated cross-sectional design; and no spillover effects.[44]

We constructed multivariate linear regression models to assess the effects of the laws. Because states implemented staffing legislation in different years, we defined the pretreatment period for each treatment state as the period from 2003 to the year before the implementation. In the model, the dependent variable was hours per patient day. The key independent variables were 3 dummy variables that represent 3 interaction terms of the dummy variables indicating the state that mandated ratios, hospitals in states that legislated committees, and hospitals in states that legislated public reporting with the dummy indicating when the law was in effect. We ran models separately for a total licensed nurse (RN plus LPN), RN, LPN, and NAP hours. The regression coefficients of the dummy variables represent the DID estimates of staffing changes in treatment hospitals compared with hospitals in states that did not implement any staffing law before and after the legislation was implemented. See the Appendix (Supplemental Digital Content 1, http://links.lww.com/MLR/C315) for details about the model specification.

We controlled for observable hospital characteristics that are likely to affect hospital staffing, including hospital size, ownership status, teaching status, location in a metropolitan area, percent Medicare days, and percent Medicaid days. We also included the Saidin Index, a measure of hospital technological sophistication that was derived from the AHA data, calculated based on a list of services available each year,[45] and the Herfindahl-Hirschman Index, a measure of hospital referral region-level competitiveness based on hospitals' market share in their service areas[46]; both were derived from the AHA data and available for each hospital each year. In addition, we controlled for the state-level number of employed RNs, LPNs, and NAP to population ratios as a proxy for market supply (lagged 1 y to account for endogeneity) and state right-to-work status as a proxy for controlling the impact of unionization.[47] We included fixed effects for time to adjust for secular changes in outcomes and hospital fixed effects to account for all unmeasured differences across hospitals that do not vary in time (eg, organizational structure, culture). SEs were clustered by the hospital. We considered a P-value < 0.05 from 2-tailed tests to be statistically significant. All analyses were performed using Stata 15 (StataCorp). The Appendix (Supplemental Digital Content 1, http://links.lww.com/MLR/C315) provides more details about the analysis and model specification.

Per suggestions by reviewers, we conducted 2 sensitivity analyses. First, we included in the model the dummy variable indicating the state of Oregon interacting with the dummy indicating when Oregon implemented the enhancement law to see whether the enhancement law has any effect on hospital nurse and NAP staffing. We did find an effect of the enhancement on LPN and NAP staffing, but not on RNs (Appendix Table 3, Supplemental Digital Content 1, http://links.lww.com/MLR/C315). Second, we conducted a robustness check by omitting California from our sample since California may be seen as an "outlier" with its mandated ratios. Because we have no way of knowing whether the state has unique characteristics that would merit its exclusion from the model, we report both findings (excluding California and including California) in our findings.

RESULTS

Table 2 presents the adjusted DID estimates from the multivariate regression models. Full regression results with controlling variables are provided in the Appendix (Supplemental Digital Content 1, http://links.lww.com/MLR/C315). After controlling for hospital characteristics, state-level factors, and year and hospital fixed effects, there was no statistically significant change in total licensed nurse (RN plus LPN) hours in states that legislated a staffing committee, while there was a positive effect in states that legislated public reporting (DID = 0.277, $P < 0.01$). In states that mandated staffing ratio (California), there was also an increase in total licensed nurse hours compared with states that did not have staffing legislation after the legislation was implemented (DID = 1.022, $P < 0.001$).

When looking at RNs separately, we found that the DID estimates in RN hours were positive in states that legislated staffing committee or public reporting, although they were not statistically significant. In California, compared with states with no nurse staffing legislation, RN hours per patient day increased by about 0.996 ($P < 0.001$) after the mandate was implemented. However, in the analysis that omitted California, we found an enhanced effect of public reporting on RN staffing, making it not just positive but also statistically significant (DID = 0.260, $P < 0.01$). There were no other differences in the results that omitted California as compared with the results that included California.

For states that adopted public reporting, there was a small decrease in LPN hours following the implementation of the legislation, compared with states with no staffing legislation, yielding a positive effect on LPN staffing (DID = 0.115, $P < 0.001$). In contrast, we found a relatively larger effect of the law on LPN hours in states that implemented the staffing committee legislation, as compared with states with no legislation (DID = –0.076, $P < 0.001$). In California, we found no evidence of an implementation effect of the staffing mandate on LPN hours per patient day.

For NAP staffing, we found no statistically significant changes in states that legislated staffing committee or public reporting when compared with states with no staffing legislation. We found an increase of 0.224 ($P < 0.01$) hours per patient day in California following the mandate.

DISCUSSION

This is the first national study that we are aware of to use a comparative research design to assess the effects of alternative policy approaches to increasing hospital nurse staffing. Our results, when we included California in the

TABLE 2. Difference-in-difference Estimates of the Effect of Nurse Staffing Legislation on Hospital Staffing

	Hours Per Patient Day							
	Model 1				Model 2			
Difference-in-difference Estimates	Total Licensed Nurse	Registered Nurse	Licensed Practical Nurse	Nurse Assistive Personnel	Total Licensed Nurses	Registered Nurse	Licensed Practical Nurse	Nurse Assistive Personnel
Staffing mandate (CA)	1.022*** (0.123)	0.996*** (0.114)	0.024 (0.030)	0.224** (0.070)	—	—	—	—
Staffing committee (CT, NY, OH, TX, WA)	−0.060 (0.065)	0.003 (0.059)	−0.076*** (0.022)	−0.070 (0.037)	0.027 (0.065)	0.086 (0.059)	−0.073*** (0.022)	−0.037 (0.038)
Public reporting (NJ, NY, RI, VT)	0.277** (0.102)	0.150 (0.094)	0.115*** (0.025)	0.095 (0.061)	0.366*** (0.103)	0.260** (0.094)	0.117*** (0.025)	0.119 (0.061)

Coefficients and the corresponding SEs are presented. Coefficients represent the difference-in-difference estimates in staffing between treatment and comparison hospitals before and after implementation of staffing legislation. Model 1 includes only the registered staffing mandate (ie, state of California). Model 2 excluded the state of California. All models controlled for hospital fixed effects, year fixed effects, and hospital characteristics impacted by Medicare payment rules (ie, teaching status, ownership, urban/rural location, and number of beds). Standard errors were clustered at the hospital level. Total licensed nurse is the sum of registered nurse and licensed practical/vocational nurse, excluding nurse assistive personnel. See the Appendix Table 2 (Supplemental Digital Content 1, http://links.lww.com/MLR/C315) for full regression results.

CA indicates California; CT, Connecticut; NJ, New Jersey; NV, Nevada; NY, New York; OH, Ohio; RI, Rhode Island; TX, Texas; VT, Vermont; WA, Washington.

**P* < 0.01.

***P* < 0.001.

***P* < 0.001.

model, neither the staffing committee nor the public reporting approaches were associated with statistically significant increases in hospital RN staffing, and, in fact, they significantly impacted LPN staffing levels and had no effect on NAP. Consistent with prior research, this model also showed that California's mandate had a significant effect on RNs, while it had no effect on LPNs and a positive effect on NAP. When we excluded California from the model, the results revealed a small positive effect of public reporting on total licensed nurse (RN plus LPN) staffing in hospitals, while the staffing committee approach did not.

In interpreting the difference between the models that included and excluded California, our only staffing mandate state, it is important to acknowledge that there are likely characteristics of the state that are unique and arguably merit its omission. However, other states may also have unique characteristics affecting their nurse staffing and if we continued omitting key states, our DID approach, which provides greater rigor that individual regressions, would not be possible. As a result, we believe our design was responsive to the question of what the relative effectiveness of these 3 policy alternatives was, even as we point to the greater uncertainty around public reporting than the other 2 policy approaches.

One explanation of why staffing committee laws may not result in higher RN staffing relates to the likely variation in nurses' power within hospitals.[9] This type of legislation does not give staffing committees control over the hospital budget, and if there are limited resources available, committees may be forced to plan cuts, rather than increases. Our findings suggest that cutting LPNs, rather than RNs, may indeed be an area where committees have found the most palatability.

An historic point of reference, in this regard, were the reforms that occurred in Oregon. Oregon recognized that their original staffing committee legislation was too weak, and in 2015, they amended the legislation to enhance nurse engagement in the committee and increase transparency in decision-making and improving state oversight and enforcement.[40] In the sensitivity analysis, we did find a positive effect of Oregon's enhanced law on increasing LPN and NAP staffing, although we still did not see a significant effect on RN staffing. While research with more details and larger a sample size is needed, in the meantime, states that are only able or willing to implement the staffing committee approach would do well to examine both our findings and the lessons of Oregon. How staffing committee are constituted, whether there is transparency in the way they function, and the degree of power they have within hospitals may make a difference.

Public reporting is a popular idea in health policy circles, and there is some evidence showing it can have a positive effect on quality and costs more generally.[48] The effects on nurse staffing, however, are far less clear. Our results only showed a significant, albeit small, effect when California was excluded, and the growth was primarily in LPNs. Prior research suggests that a higher ratio of RNs to LPNs improves quality.[30–32] When California was included, there was a very small positive association of public reporting approach laws and RN staffing, but it was not statistically significant.

Therefore, while our findings show that public reporting is less effective than mandating staffing ratios, for states unable or unwilling to mandate ratios, it is possible that there could be a small benefit of public reporting.

The original assumptions underlying the public reporting rely on the idea that data would be accessed, understood, and used by the public to make decisions about where to seek care. The study on New Jersey's public reporting legislation reported that, even at the moment of the program's initial launch, the media hardly acknowledged its existence.[38] We know that reporting mechanisms vary across states with public reporting requirements, and there is no standardization of how states report their data, nor where consumers can access the information.[12] For example, New York does not provide a public Web site with the data, and information is only available upon request.[49] This likely further complicates the communication of data to the public. Thus, as with staffing committee laws, there may be ways to strengthen public reporting. Specifically, policy makers may wish to stipulate how the data is collected and where it is posted, such that the public can have greater access.

With regard to NAP and LPN staffing in California, our study was largely consistent with prior research on this topic.[8,21,25] There were, however, 2 differences worth discussing. First, unlike prior studies,[22,23] our findings suggest a statistically significant increase in NAP staffing in hospitals in California when compared with states that had no staffing legislation. The different results could be related to different definitions of unlicensed assistive personnel in the 2 data sources and/or the study design (no comparison states in prior studies). Prior national studies have found that unlicensed personnel are generally complementary, rather than substitutive, to RNs, and have no statistically significant substitutive relationship with LPNs in hospitals.[50] Thus, it is reasonable that hospitals would raise both RN and NAP staffing to comply with the mandate, as appears to have occurred in our study. Similarly, we did not observe statistically significant increases in NAP staffing in those states that did not increase their RN staffing. Nor did we observe a significant increase on NAP staffing in states that relied more on LPNs (slower rate of decline).

A second difference is that we did not find a significant effect of the mandate on LPN staffing. Prior research in California found that hospitals with low preregulation staffing levels significantly increased LPN staffing, while hospitals with high preregulation staffing levels did not.[21,25] The insignificance of the LPN staffing increase could, therefore, be due to the heterogenous hospital responses to the regulations based on their prelegislation staffing levels. It could also be a result of the different data sources and different comparison group used in prior research.

Our study has several limitations. Although the AHA survey is one of the most consistent and reliable national longitudinal data sources to study hospital staffing, there are some disadvantages to the data. First, the AHA measures FTEs with part-time nurses being 0.5 of full-time; however, if part-time nurse hours are changing over time, this measure may not accurately assess the change in nurse staffing. In addition, the data do not allow us to separate direct-care nurses from unit managers or nurses without direct-care roles, which might result in overestimating of FTEs. Second, as indicated in prior studies,[4,39] the standard measure, "adjusted patient days" that was used to adjust total hours of nursing care, may underestimate inpatient staffing while overestimating staffing for outpatient care. Third, the hospital-level data are unable to identify changes at the unit level, which could underestimate the effect in some units such as the medical/surgical units that are most sensitive to staffing requirements. Fourth, the AHA defined NAP as "certified nursing assistant or equivalent unlicensed staff assigned to patient care units and reporting to nursing,"[36] but there is no precise list of occupations included, so we were unable to further investigate the effect on this type of occupation in detail. Furthermore, although our approach can control for unobservable time-invariant factors that could have affected staffing, our estimates could be affected by omitted factors, such as patient case-mix, other staffing policies such as mandatory overtime and data collection, or reactions to publicity about quality problems at hospitals. Despite these limitations, our results are largely consistent with prior studies[8,21,25] suggesting that the pattern we observed may not be attributable to bias in the data source or the study design.

CONCLUSIONS

Our study did not find evidence to support the 2 policy alternatives to mandated staffing ratios. Staffing committee laws had no effect, and public reporting laws only showed a small effect when California was omitted in our analysis, and it primarily benefitted LPNs. These findings, however, raise important questions to be pursued in future research, including ways that the 2 alternative approaches might be strengthened. It also lays the groundwork for research on patient outcomes associated with the implementation of these policies, including the direct costs of hiring more staff, as well as savings that could be incurred if nurse turnover is reduced as a result of better staffing ratios. While the primary purpose of increasing nurse staffing is to benefit patient outcomes, studies to date in California and Massachusetts show mixed results,[16,17,23,25,27] suggesting more work is needed in this area.

In the wake of coronavirus disease 2019, increasing nurse staffing in hospitals remains the top demand of frontline nurses. We know that an inadequate level of staffing can result in burn-out, turnover, and high vacancy rates, as well as threats to patient safety.[2–6] Given that the average turnover rates for US hospitals were rising even before coronavirus disease 2019,[51] the issue of nurse staffing continues to be a priority, and more evidence on policies that work is urgently needed.

REFERENCES

1. Bielaszka-DuVernay C. Health Policy Brief: Improving quality and safety. *Health Affairs*. 2011. Available at: http://10.1377/hpb20110415.2011;536210. Accessed May 19, 2019.
2. Aiken LH, Clarke SP, Sloane DM, et al. Hospital nurse staffing and patient mortality, nurse burnout, and job dissatisfaction. *JAMA*. 2002;288:1987–1993.
3. Kane RL, Shamliyan TA, Mueller C, et al. The association of registered nurse staffing levels and patient outcomes: systematic review and meta-analysis. *Med Care*. 2007;45:1195–1204.
4. Needleman J, Buerhaus P, Mattke S, et al. Nurse-staffing levels and the quality of care in hospitals. *N Engl J Med*. 2002;346:1715–1722.

5. Needleman J, Buerhaus P, Pankratz VS, et al. Nurse staffing and inpatient hospital mortality. *N Engl J Med*. 2011;364:1037–1045.
6. Aiken LH, Sloane DM, Bruyneel L, et al. Nurse staffing and education and hospital mortality in nine European countries: a retrospective observational study. *Lancet*. 2014;383:1824–1830.
7. American Nurse Association. Nurse staffing. 2019. Available at: www.nursingworld.org/practice-policy/nurse-staffing/nurse-staffing-advocacy/. Accessed August 18, 2020.
8. McHugh MD, Kelly LA, Sloane DM, et al. Contradicting fears, California's nurse-to-patient mandate did not reduce the skill level of the nursing workforce in hospitals. *Health Aff*. 2011;30:1299–1306.
9. Jones T, Heui Bae S, Murry N, et al. Texas nurse staffing trends before and after mandated nurse staffing committees. *Policy Polit Nurs Pract*. 2015;16:79–96.
10. Blankenhorn A. Staffing committees: a safe staffing solution that includes engagement. *American Nurse Today, Official Journal of American Nurse Association*; March 2018. Available at: www.americannursetoday.com/safe-staffing-solution-engagement/. Accessed May 28, 2019.
11. Faber M, Bosch M, Wollersheim H, et al. Public reporting in health care: how do consumers use quality-of-care information? A systematic review. *Med Care*. 2009;47:1–8.
12. de Cordova PB, Pogorzelska-Maziarz M, Eckenhoff ME, et al. Public reporting of nurse staffing in the United States. *J Nurs Regul*. 2019;10:14–20.
13. Buerhaus PI. What is the harm in imposing mandatory hospital nurse staffing regulations? *Nurs Econ*. 2010;28:87.
14. Calio V. State nurses rail against bill requiring minimum nurse-to-patient ratios. NJBIZ; 2018. Available at: https://njbiz.com/state-nurses-rail-against-bill-requiring-minimum-nurse-to-patient-ratios/. Accessed May 31, 2018.
15. National Nurses United. RNs call on Illinois lawmakers to support gold-standard nurse-to-patient staffing legislation to ensure patient safety; February 25, 2019. Available at: www.nationalnursesunited.org/press/rns-call-illinois-lawmakers-support-gold-standard-nurse-patient-staffing-legislation-ensure. Accessed March 24, 2019.
16. Spetz J. California's minimum nurse-to-patient ratios: the first few months. *J Nurs Adm*. 2004;34:571–578.
17. Donaldson N, Bolton LB, Aydin C, et al. Impact of California's licensed nurse-patient ratios on unit-level nurse staffing and patient outcomes. *Policy Polit Nurs Pract*. 2005;6:198–210.
18. Burnes Bolton L, Aydin CE, Donaldson N, et al. Mandated nurse staffing ratios in California: a comparison of staffing and nursing sensitive outcomes pre- and post-regulation. *Policy Polit Nurs Pract*. 2007;8:238–250.
19. Serratt T, Harrington C, Spetz J, et al. Staffing changes before and after mandated nurse-to-patient ratios in California's hospitals. *Policy Polit Nurs Pract*. 2011;12:133–140.
20. Reiter KL, Harless DW, Pink GH, et al. The effect of minimum nurse staffing legislation on uncompensated care provided by California hospitals. *Med Care Res Rev*. 2011;68:332–351.
21. Reiter KL, Harless DW, Pink GH, et al. Minimum nurse staffing legislation and the financial performance of California hospitals. *Health Serv Res*. 2012;47(pt 1):1030–1050.
22. Munnich EL. The labor market effects of California's minimum nurse staffing law. *Health Econ*. 2014;23:935–950.
23. Cook A, Gaynor M, Stephens M Jr, et al. The effect of a hospital nurse staffing mandate on patient health outcomes: evidence from California's minimum staffing regulation. *J Health Econ*. 2012;31:340–348.
24. Spetz J, Harless DW, Herrera CN, et al. Using minimum nurse staffing regulations to measure the relationship between nursing and hospital quality of care. *Med Care Res Rev*. 2013;70:380–399.
25. Mark BA, Harless DW, Spetz J, et al. California's minimum nurse staffing legislation: results from a natural experiment. *Health Serv Res*. 2013;48(pt 1):435–454.
26. Aiken LH, Sloane DM, Cimiotti JP, et al. Implications of the California nurse staffing mandate for other states. *Health Serv Res*. 2010;45:904–921.
27. Law AC, Stevens JP, Hohmann S, et al. Patient outcomes after the introduction of statewide ICU nurse staffing regulations. *Crit Care Med*. 2018;46:1563–1569.
28. de Cordova PB, Rogowski J, Riman KA, et al. Effects of public reporting legislation of nurse staffing: a trend analysis. *Policy Polit Nurs Pract*. 2019;20:92–104.
29. Institute of Medicine (US). *Committee on the Robert Wood Johnson Foundation Initiative on the Future of Nursing The future of Nursing: Leading Change, Advancing Health*. Washington, DC: National Academies Press; 2011.
30. Seago JA, Williamson A, Atwood C. Longitudinal analyses of nurse staffing and patient outcomes: more about failure to rescue. *J Nurs Adm*. 2006;36:13–21.
31. Estabrooks CA, Midodzi WK, Cummings GG, et al. The impact of hospital nursing characteristics on 30-day mortality. *Nurs Res*. 2005;54:74–84.
32. Tourangeau AE, Giovannetti P, Tu JV, et al. Nursing-related determinants of 30-day mortality for hospitalized patients. *Can J Nurs Res*. 2002;33:71–88.
33. Skillman SM, Andrilla CH, Patterson DG, et al. The licensed practical nurse workforce in the United States: one state's experience. *Cah Sociol Demogr Med*. 2010;50:179–212.
34. Coffman JM, Seago JA, Spetz J. Minimum nurse-to-patient ratios in acute care hospitals in California. *Health Aff*. 2002;21:53–64.
35. Dunton N, Schumann MJ. Early evidence on California staffing ratios should be interpreted with caution. *Policy Polit Nurs Pract*. 2005;6:354–357.
36. American Hospital Association. 2017 AHA Annual Survey. 2017. Available at: www.ahadata.com/wp-content/uploads/2017AHAAnnual.pdf. Accessed December 1, 2017.
37. Bureau of Labor Statistics. Occupational employment statistics. 2019. Available at: www.bls.gov/oes/current/oes_stru.htm. Accessed June 17, 2019.
38. National Conference of State Legislatures. Right-to-work resources. Available at: www.ncsl.org/research/labor-and-employment/right-to-work-laws-and-bills.aspx. Accessed June 17, 2019.
39. Spetz J, Donaldson N, Aydin C, et al. How many nurses per patient? Measurements of nurse staffing in health services research. *Health Serv Res*. 2008;43(pt 1):1674–1692.
40. Oregon's New Staffing Law. Oregon Center for Nursing. 2016. Available at: https://oregoncenterfornursing.org/oregons-new-nurse-staffing-law/#:~:text=In%202015%2C%20the%20Oregon%20Legislature,patients'%20health%20care%20needs.%E2%80%9D. Accessed August 1, 2021.
41. Donald SG, Lang K. Inference with difference-in-differences and other panel data. *Rev Econ Stat*. 2007;89:221–233.
42. Wing C, Simon K, Bello-Gomez RA. Designing difference in difference studies: best practices for public health policy research. *Annu Rev Public Health*. 2018;39:453–469.
43. Khandker S, B. Koolwal G, Samad H. *Handbook on Impact Evaluation: Quantitative Methods and Practices*. Washington, DC: The World Bank; 2009.
44. The Columbia University School of Public Health. Population health methods. Difference-in-difference estimation. 2020. Available at: www.publichealth.columbia.edu/research/population-health-methods/difference-difference-estimation. Accessed on February 18, 2021.
45. Lumsden K, Petersen C. The effect of right-to-work laws on unionization in the United States. *J Political Econ*. 1975;83:1237–1248.
46. Spetz J, Maiuro LS. Measuring levels of technology in hospitals. *Q Rev Econ Finance*. 2004;44:430–447.
47. Seo S, Spetz J. Demand for temporary agency nurses and nursing shortages. *Inquiry*. 2013;50:216–228.
48. James J. Health Policy Briefs: Public reporting on quality and costs. Health Affairs; 2012.
49. New York Public Health Law. Sec. 2805-T. Disclosure of nursing quality indicators.
50. Li S, Pittman P, Han X, et al. Nurse-related clinical nonlicensed personnel in US hospitals and their relationship with nurse staffing levels. *Health Serv Res*. 2017;52:422–436.
51. NSI Nursing Solutions Inc. 2019 National Health Care Retention & RN Staffing Report; March 2019. Available at: www.nsinursingsolutions.com/Files/assets/library/retention-institute/2019%20National%20Health%20Care%20Retention%20Report.pdf. Accessed June 17, 2019.

Empirical Research

The Impact of Nursing Staff on Satisfaction Scores for U.S. Hospitals: A Production Function Approach

Medical Care Research and Review
2021, Vol. 78(6) 672–683

DOI: 10.1177/1077558720950572
journals.sagepub.com/home/mcr
SAGE

Roberto Delhy[1], Avi Dor[1,2], and Patricia Pittman[1]

Abstract

Hospitals have increasingly relied on nurse assistants to support nurses in the provision of patient care, yet knowledge about their contributions to the patient experience in U.S. hospitals is limited. We address this issue by exploring the impact of nurse assistants and registered nurses on an array of patient satisfaction measures from the Medicare Hospital Consumer Assessment of Healthcare Providers and Systems. Using linked data for 2,807 hospitals from 2008 to 2016, we employ a production function approach to estimate and plot marginal impact curves for both nurse assistants and registered nurses. We find that although registered nurses are more impactful, nurse assistants are the more underdeployed staffing category. We also find that after meeting certain thresholds for minimal hours, nurse assistants have a comparative advantage in improving patient satisfaction scores in the housekeeping and patient support domain. Given their lower labor costs, further employment of nurse assistants may be warranted.

Keywords

production function, HCAHPS, hospital quality, nursing economics, nurse assistants

Introduction

There is a growing body of evidence suggesting that hospital nurse staffing is critical to patient safety and, more recently, to patient satisfaction. Through labor unions and professional associations, nurses continue to make demands for higher wages and better working conditions, with more limited representation available to nursing assistants (NAs; Associated Press, 2018; Naylor & Miller, 2018; Secretary of the Commonwealth of Massachusetts, 2018). While nursing care in hospitals is primarily provided by licensed nurses, that is, registered nurses (RNs) and to a lesser extent licensed practical nurses (LPNs), hospitals have increasingly relied on NAs to assist nurses in the provision of patient care (Kleinman & Saccomano, 2006; Stanton, 2004). NAs act under the supervision and delegation of RNs and may be identified under titles such as nurses' aides or attendants. Guided by State Boards and professional organizations, the tasks that are delegated to NAs are expected to be recurrent, involve minimal risks and do not require ongoing assessments from one care situation to another (American Nurses Association, 2012; Kleinman & Saccomano, 2006)

Despite their significant contributions in delivering hospital care, NAs remain the less studied group, and possibly less understood in terms of their value. Moreover, NAs appear to be poorly compensated and less well organized in collective bargaining compared with nursing professionals (Goozner, 2018). Following a 10-year hiatus associated with the great recession, nursing shortages and labor conflicts are reemerging around the country, reigniting debates on the need for minimum staffing regulations, again largely ignoring the role of NAs. This study seeks to fill this knowledge gap, using a flexible estimation approach with a view to inform policy.

There is an extensive literature focusing on staffing-to-patient ratios (Aiken et al., 2002; Hockenberry & Becker, 2016; Mark et al., 2004; Needleman et al., 2002; Stanton, 2004; Tong, 2011) or nursing-to-total staff ratios (Cho et al., 2003). Generally, these studies have shown that nurse staffing levels are positively associated with patient outcomes.

This article, submitted to *Medical Care Research and Review* on October 8, 2019, was revised and accepted for publication on July 20, 2020.

[1]The George Washington University, Washington, DC, USA
[2]National Bureau of Economic Research, Cambridge, MA, USA

Corresponding Author:
Avi Dor, Department of Health Policy and Management, Milken Institute School of Public Health, The George Washington University, 950 New Hampshire Avenue, Washington, DC 20052-0086, USA.
Email: avidor@gwu.edu

However, to date studies indicating the potential importance of NAs in improving patient outcomes in hospitals have been limited to case studies and nurse surveys on team performance (Badovinac et al., 1999; Bellury et al., 2016; Wagner, 2018).

This study examines the relationship of staffing levels for both NAs and RNs by estimating the direct contribution of each to outcomes, rather than inferring their role indirectly through the impacts of staffing ratios (we also control for LPNs who have a minor presence in hospital staffing). In particular, we focus on patient satisfaction outcomes using the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS). Patient satisfaction scores have been shown to be reliable indicators of overall quality of care (Mazurenko et al., 2017; Price et al., 2014). First disseminated in 2008 by the Centers for Medicare & Medicaid Services (CMS), the HCAHPS metrics grew in importance with their inclusion as part of the value-based incentive payment of the inpatient prospective payment system in 2012.

New Contributions

This study builds on recent nurse staffing and HCAHPS research to specifically examine the contributions of both NAs and RNs. Hockenberry and Becker (2016) found positive associations between nurse staffing and HCAHPS in one state—California. Martsolf et al. (2016) found positive associations between nurse staffing and HCAHPS in three states—California, Maryland, and Nevada from 2009 to 2011. Neither found skill mix to be a significant predictor, although their measurements of skill mix were limited to RNs as a percentage of all hospital staff.

Our study contributes to the literature by examining a national sample of 2,807 hospitals from 2008 to 2016. To capture the impacts of both NAs and RNs on patient satisfaction, we use a more flexible empirical specification than found in previous studies, namely a *production function* approach. In particular, we use the cubic function (Yunker, 2012) which has been used in a variety of settings, including environmental protection (Shrestha & Gopalakrishnan, 1991), farm production (Griffin et al., 1987), and analogously in cost function analyses of health care providers such as hospitals (Carey, 1997) and ambulatory surgical centers (Mitchell & Carey, 2016). Rather than focusing solely on RNs as a proportion of hospital staff, we consider the effects of NAs and RNs separately and standardize them in terms of hours per patient day. This specification expresses the inputs in terms of nursing intensities. Coupled with the cubic model, this will allow for a more complex pattern of RN or NA effects than possible with a simple linear model.

Our analysis is performed in stages. First, we estimate the average marginal impacts of both staff types on each patient satisfaction measure. Second, we plot the corresponding marginal impact curves, showing the ranges of increasing and decreasing productivities. Third, using simulation techniques, for each patient satisfaction measure we estimate the critical values of staff hours per patient day at which the marginal impact of each type of staff hour is maximized. All underlying regression models contain the cubic functions fully for both staff types. We did not include their interaction terms as they were not statistically significant at the 5% level in alternative specifications of our models. We believe that this approach may be of particular interest to workforce planners and managers as they consider the effects of alternative staffing scenarios.

Conceptual Framework

Under our conceptual framework, we categorize HCAHPS measures under the domains "patient support/housekeeping," "patient management," and "overall indices." Given the nature of delegation within the nursing profession, tasks that are usually delegated to NAs: do not involve ongoing assessments, interpretations, or decision making, are considered to be repetitive, and involve minimal potential risks (American Nurses Association, 2012; Plawecki & Amrhein, 2012; Potter et al., 2010). Thus, we hypothesize that NAs will have a relatively larger impact on improving patient satisfaction in the "patient support/housekeeping" domain. Similarly, we hypothesize that RNs would have a relatively larger impact in the patient management domain, that is, pain management, which aligns with their more advanced clinical training.

Specifically, we hypothesize as follows:

Hypothesis 1: Both NAs and RNs have a positive impact on patient satisfaction; however diminished marginal impacts are present where the marginal impacts of both staff types initially increase with greater deployment but peak or flatten out after reaching a certain point.

Hypothesis 2: NAs will exhibit a comparative advantage in patient support/housekeeping outcomes, while RNs will exhibit a comparative advantage in patient management outcomes. For example, the marginal impacts of RN hours on patient management outcomes relative to patient support/housekeeping outcomes will be higher compared with the relative marginal impacts of NA hours.

In economics, the relationship between units of output produced and types of inputs used in the production process is generally characterized by the production function. Previous research adopted variants of the production function to measure the impact of workforce productivity in the delivery of inpatient services in hospitals (Jensen & Morrisey, 1986) and physician visits in private practices (Thurston & Libby, 2002).

We adopt this approach to examine the relationship between different nursing staff inputs and patient satisfaction measures in hospitals. We posit a general production function of the form: $Y = F(N_1, N_1^2, N_1^3, N_2, N_2^2, N_2^3, D, W, K : H, S)$, where Y, the "output" being produced, here, is the level of patient satisfaction; N is the vector of nursing inputs, measured in hours (e.g., N_1 = NAs, N_2 = RNs); D = physician

inputs; W = all other hospital staff (a residual category); K measures the hospital's capital stock—typically given by number of beds (Carey, 2000; Carey & Dor, 2008; Dor & Farley, 1996). All effects are conditioned on hospital characteristics (H), including for-profit/nonprofit status, case mix index (CMI), and teaching status and state-level characteristics (S) such as minimum nurse staffing laws and state fixed effects. Given our primary interest in NAs and RNs, for estimation purposes, we combine the staffing variables (D and W) in a single "other staff" variable. This has the advantage of simplifying our empirical model and reducing the number of incidental parameters that need to be estimated.

Our approach complements the earlier studies on health care production functions (Jensen & Morrisey, 1986; Thurston & Libby, 2002) in two important respects. First, these studies specify classic production functions where outputs are measured in units of hospital admissions or outpatient visits. Second, they focus on the physician inputs rather than the nursing categories that are of interest to us. Applying this framework to patient satisfaction measures will allow us to identify the contributions of staffing inputs in a complementary way.

To shed light on the complex relationship between our outcome measures and levels of NA and RN hours per patient day, we adopt a nonlinear specification of the production function, namely a multiple-input cubic function. This functional form has been used in a variety of health and nonhealth production settings (Carey, 1997; Griffin et al., 1987; Mitchell & Carey, 2016; Shrestha & Gopalakrishnan, 1991; Yunker, 2012). With this approach, we are able to establish how the impact of an extra NA and RN hour varies across various patient satisfaction measures. Moreover, this approach allows us to predict well-defined ranges of NA and RN staffing at which the impact of an extra hour in either yields improvements in patient satisfaction. Similarly, we can observe the extent to which each input exhibits diminishing marginal productivities as well as staffing hours corresponding to peak efficacy. By estimating an optimal number of hours of NAs and RNs for each patient satisfaction measure separately, we are able to identify the comparative advantages of the two staff types.

Data

We link data from the American Hospital Association (AHA; 2018) Annual Survey with CMS' hospitals' CMIs and the HCAHPS Survey for the years 2008-2016. After merging these three databases, our resulting data set contains information for 2,807 hospitals and 16,919 hospital-year observations.

HCAHPS Patient Satisfaction Measures

The HCAHPS is a nationally administered database that collects and reports publicly available information regarding adult inpatient care experiences. According to CMS, the HCAHPS survey has three important goals: (a) to produce comparable data on patients' perspectives, (b) to incentivize hospitals to improve their quality of care through public reporting,[1] and (c) to increase hospitals' accountability (CMS, 2019). Currently, the HCAHPS contains 11 distinct measures, of which seven pertain directly to nursing-related activities and two address the overall experience in the hospital.[2] There are different ways of categorizing the various measures; for purposes of this study, we use the following classification:

Housekeeping/Patient Support

- Percentage of patients reporting their room was "always" clean (HCOMP-C—*cleanliness*)
- Percentage of patients reporting the area around their room was "always" quiet at night (HCOMP-Q—*quietness*)
- Percentage of patients reporting their nurses "always" communicated well (HCOMP-1—*communication*)
- Percentage of patients reporting they "always" received help as soon as they wanted (HCOMP-3—*promptness of help*)

Patient Management

- Percentage of patients reporting their pain was "always" well controlled (HCOMP-4—*pain control*)
- Percentage of patients reporting hospital staff "always" explained about medicines before giving them (HCOMP-5—*meds information*)
- Percentage of patients reporting YES, they were given information about what to do during recovery at home (HCOMP-6—*recovery information*)

Overall Patient Satisfaction

- Percentage of patients giving their hospital a 9 or 10 rating on a scale from 0 (lowest) to 10 (highest; HCOMP-R—*top rating*)
- Percentage of patients reporting YES, they would definitely recommend the hospital (HCOMP-A—*hospital recommendation*)

The average percentage of hospital patients who reported the most positive outcome for each question ranged from 58.9% (HCOMP-Q) to 84.4% (HCOMP-6). The corresponding percentages for the overall patient satisfaction measures, that is, HCOMP-R and HCOMP-A, were 69.1% and 70.7%, respectively. Table 1 includes summary statistics for all the above measures.

Workforce Variables

Our two key independent variables areas are as follows: (a) the number of staff hours per adjusted patient day for RNs and (b) the number of staff hours per adjusted patient day for

Table 1. Summary Statistics.

	M	*SD*	Median
Dependent variables			
Housekeeping/patient support measures			
Their room was "always" clean (HCOMP-C—*cleanliness*)	71.02	6.88	71
The area around their room was "always" quiet at night (HCOMP-Q—*quietness*)	58.97	9.71	59
Their nurses "always" communicated well (HCOMP-1—*communication*)	77.28	5.42	78
They "always" received help as soon as they wanted (HCOMP-3—*promptness of help*)	64.47	7.91	64
Patient management measures			
Their pain was "always" well controlled (HCOMP-4—*pain control*)	69.77	4.93	70
Hospital staff "always" explained about medicines before giving them (HCOMP-5—*medicines information*)	61.95	5.97	62
YES, they were given information about their recovery at home (HCOMP-6—*recovery information*)	84.38	4.64	85
Overall patient satisfaction measures			
Their hospital a 9 or 10 rating on a scale from 0 (*lowest*) to 10 (*highest*; HCOMP-R—*top rating*)	69.13	8.44	69
YES that they would definitely recommend the hospital (HCOMP-A—*hospital recommended*)	70.66	9.26	71
Independent variables			
Nursing workforce characteristics			
NA hours per adjusted patient day	1.83	1.10	1.64
RN hours per adjusted patient day	7.23	2.71	6.90
LPN hours per adjusted patient day	0.54	0.69	0.29
Hospital characteristics			
Total number of FTE hospital unit total personnel	1431.45	1873.99	853
Total number of hospital beds	222.95	215.98	160
	Percentage	Frequency	
Hospital types			
Percentage of urban hospitals[a]	76.27	2,141	
Percentage of major teaching hospitals[a]	7.73	217	
Percentage of government, nonfederal hospitals[a]	13.18	370	
Percentage of private not-for-profit hospitals[a]	61.63	1,730	
Percentage of private for-profit hospitals[a]	25.19	707	
Number of hospitals	2,807		
Observations	16,919		

Note. NA = nursing assistant; RN = registered nurse; LPN = licensed practical nurse; FTE = full-time equivalents.
Source. American Hospital Association Annual Survey 2008-2016 and HCAHPS Survey 2008-2016.
[a]Percentage of hospitals in their last reporting year.

NAs. To calculate the number of staff hours per adjusted patient day, similarly to Spetz et al. (2008), we assume a total of 1,768 staff hours per full-time equivalents (FTE). Following the AHA definitions, NAs are assistants assigned to patient care units that are under the supervision of RNs and RNs are nurses who have graduated from schools of nursing and are currently registered in the state. RNs are directly responsible for the quality of nurse care received by patients. Note that in the AHA definitions, an adjusted patient day includes a loading factor for outpatient services provided. In Table 1, we report the summary statistics for all independent variables. For NAs, the mean and median number of hours per adjusted patient day were 1.83 and 1.64, respectively. The corresponding mean and median for RNs were significantly higher at 7.23 and 6.90, respectively.

We control for the number of staff hours per adjusted patient day for LPNs; LPNs are a very small percentage of the nursing workforce in hospitals (Table 1), and we also control for the overall size of the hospital's workforce (all medical and support occupations included) using the number of total facility FTEs which resulted in a mean of 1,431 and a standard deviation equal to 1,873.

Hospital Characteristics

In all analyses, we control for main hospital characteristics of ownership, location, and size. Table 1 shows there were 370 nonfederal public hospitals, 1,730 private not-for-profit hospitals, and 707 for-profits. The sample also included 217 major teaching hospitals. In terms of location, of the 2,807 hospitals in our data, 2,141 (76.2%) were located in urban areas and 666 (23.7%) were rural. The number of beds serves as a control for the size of the hospital and its capital; the mean number of beds was 223, with a median of 160. Additionally, we include CMS' hospital-level CMI. In this study, we excluded hospitals that provide nursing home care.

State Level Characteristics

In addition to state fixed effects, we control for changes in states' nurse-related minimum staffing regulations,[3] using information from Spetz et al. (2013) and the American Nurses Association (2009). We include a set of dummy variables that indicate whether states have implemented minimum nurse-to-patient staffing mandates, RN-driven staffing committees, and/or public reporting of nursing staffing levels (de Cordova et al., 2019).

Method

Regression Analysis

For each HCAHPS patient satisfaction measure, we model a two-input cubic production function using the following regression model:

$$HCAHPS_{it} = \beta_0 + \beta_1 NAh_{it} + \beta_2 NAh_{it}^2 + \beta_3 NAh_{it}^3 + \beta_4 RNh_{it} + \beta_5 RNh_{it}^2 + \beta_6 RNh_{it}^3 + \beta_7 LPNh_{it} + \beta_8 \#FTE_{it} + \beta_9 \#Bed_{it} + \beta_{10} Urban_i + \beta_{11} Teaching_i + \beta_{12} Ownership_i + \beta_{13} Casemix_{it} + \beta_{14} MSR_{it} + \beta_{15} state_i + \beta_{16} year + \varepsilon_{it}$$

Y_{it} = the percentage of patients who reported the most positive answer to each patient satisfaction question in hospital i in year t

NAh_{it} = the number of NA hours per adjusted patient day

RNh_{it} = the number of RN hours per adjusted patient day

The other control variables include: $LPNh_{it}$ the number of LPN staff hours per adjusted patient day, FTE—indicates the number of FTE total personnel,[4] "beds"—indicates the total number of hospital beds, "urban"—indicates whether a hospital is located in an urban area or not, "teaching"—indicates whether a hospital is a major teaching hospital,[5] "ownership"—indicates the type of hospital ownership (private not-for-profit, governmental nonfederal, private for-profit), "casemix"—indicates the hospital's CMI, and "MSR"—is a set of three dummy variables that indicates the type of state minimum staffing regulation that applies to the hospital (minimum nurse-to-patient mandates, RN-driven staffing committees, public reporting of nursing staffing, with no regulation as the reference group).

Additionally, we include state fixed effects to control for differences in labor policies (Pittman et al., 2018) and year fixed effects. Clustering observations at the hospital level accounts for within-hospital serial correlation and produces robust standard errors (Wooldridge, 2015).

Using the regression model previously described, we can estimate the marginal impact of both NAs and RNs on each HCAHPS patient satisfaction measure by calculating the first derivative of the two-input cubic production function. For NAs their marginal impact on a given patient satisfaction measure (MP_{NA}) is equal to

$$\frac{\partial HCAHPS}{\partial NAh} = \beta_4 + 2\beta_5 NAh + 3\beta_6 NAh^2$$

Similarly, for RNs, their marginal impact on a given patient satisfaction measure (MP_{RN}) is

$$\frac{\partial HCAHPS}{\partial RNh} = \beta_1 + 2\beta_2 RNh + 3\beta_3 RNh^2$$

To assess the appropriateness of including quadratic and cubic terms in our models, we conducted F tests for the following null hypotheses: (a) the coefficients on NAh_{it}^2 *and* NAh_{it}^3 are simultaneously equal to 0 and (b) the coefficients on RNh_{it}^2 and RNh_{it}^3 are simultaneously equal to 0 (Wooldridge, 2015). In eight of our nine regression models, we reject both null hypotheses with p values that range between .00 and .05. We also tested alternative specifications, which included interaction terms for *NAh* and *RNh*. Although in principle this would have allowed us to determine the degree of complementarity between the staff types, the interaction terms were not statistically significant at the 5% significance level in seven of our nine regression models.

Marginal Impact Curves

To generate the marginal impact curves, we use a SciPy's optimization routine within Python. Rather than calculating point estimates, this optimization method allows us to fit the entire distribution of marginal impact values for our range of nursing inputs (Jones et al., 2001). To obtain the shape and local maximum of the MP_{NA} and MP_{RN} curves, SciPy employs the Nelder–Mead (Nelder & Mead, 1965) simplex algorithm that uses incremental changes in the function values. To graph our marginal impact curves, we use Python's Matplotlib plotting library. We repeat the process for each of our staff type-HCAHPS combinations shown Figures 1.1 and 1.2.

Results

Tables 2 to 4 show results from the regressions on each of our three groupings of the HCAHPS patient satisfaction

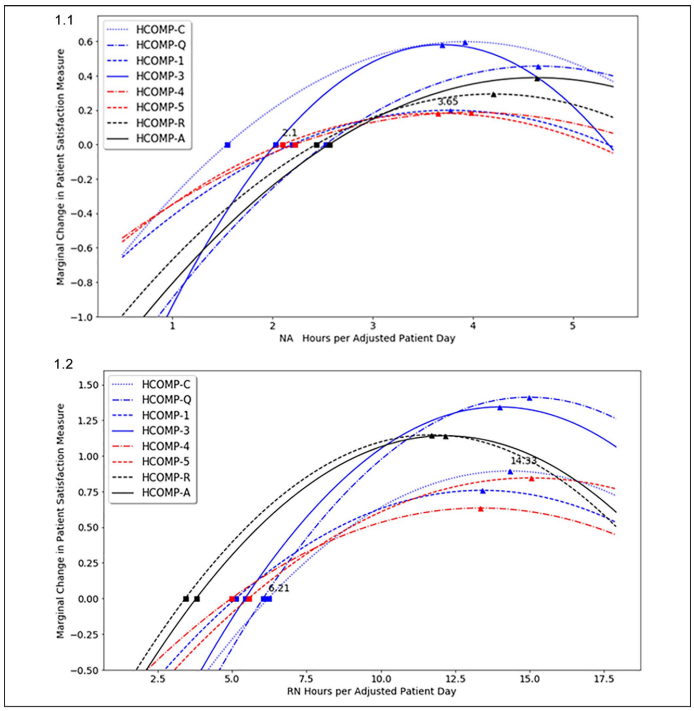


Figure 1. Impacts of nursing hours on patient satisfaction: (1.1) Marginal impacts of NA hours per adjusted patient day. (1.2) Marginal impacts of RN hours per adjusted patient day.

measures. We obtain similar and consistent findings across all HCAHPS measures. For instance, Table 2, which reports the relationship between the housekeeping/patient support measures and the number of NA and RN hours per patient day, displays the same general pattern of the coefficients of the linear, quadratic, and cubic terms, namely negative-positive-negative for the four dependent variables. We found similar results for the set of patient management measures (Table 3) and for the overall satisfaction measures[6] (Table 4).

However, regression coefficients taken in isolation do not necessarily reflect scaled effects. Put together, all of our regression results show that the marginal impacts for both staff categories are increasing at a declining rate. For example, as observed in Table 2, we find that for the dependent

Table 2. Results: Impact of Nursing Staff Hours on Housekeeping/Patient Support.

	(1)	(2)	(3)	(4)
	HCOMP-C (*cleanliness*)	HCOMP-Q (*quietness*)	HCOMP-1 (*communication*)	HCOMP-3 (*promptness of help*)
(NA Hours per Adj. Pat Day)	−1.032** (0.434)	−1.735*** (0.493)	−0.939*** (0.306)	−2.279*** (0.476)
(NA Hours per Adj. Pat Day)^2	0.416*** (0.160)	0.471** (0.189)	0.302*** (0.113)	0.775*** (0.172)
(NA Hours per Adj. Pat Day)^3	−0.035** (0.017)	−0.034 (0.021)	−0.027** (0.012)	−0.070*** (0.017)
(RN Hours per Adj. Pat Day)	−1.892*** (0.312)	−2.557*** (0.360)	−1.231*** (0.229)	−2.248*** (0.346)
(RN Hours per Adj. Pat Day)^2	0.194*** (0.032)	0.265*** (0.038)	0.148*** (0.024)	0.257*** (0.036)
(RN Hours per Adj. Pat Day)^3	−0.005*** (0.001)	−0.006*** (0.001)	−0.004*** (0.001)	−0.006*** (0.001)
(LPN Hours per Adj. Pat Day)	0.292* (0.157)	0.311* (0.182)	0.241* (0.125)	0.808*** (0.178)
Total FTE personnel	0.001*** (0.000)	0.000** (0.000)	0.000*** (0.000)	0.001*** (0.000)
Total hospital beds	−0.012*** (0.001)	−0.010*** (0.001)	−0.007*** (0.001)	−0.013*** (0.001)
Urban hospital	−2.053*** (0.268)	0.001 (0.307)	−1.235*** (0.187)	−2.513*** (0.292)
Major teaching hospital	−2.279*** (0.419)	−0.627 (0.501)	−1.092*** (0.304)	−1.509*** (0.447)
Private, not-for-profit	0.143 (0.305)	−0.112 (0.347)	0.697*** (0.227)	0.509 (0.323)
Private, for-profit	−2.236*** (0.354)	0.551 (0.404)	−1.840*** (0.260)	−1.723*** (0.384)
Case mix index	0.057 (0.053)	0.063 (0.066)	0.134*** (0.039)	0.090 (0.063)
Staffing regulation: Mandate	−1.919*** (0.526)	−2.138*** (0.584)	−0.518* (0.299)	−0.667 (0.502)
Staffing regulation: Committee	−0.088 (0.390)	−0.408 (0.425)	0.131 (0.351)	−0.088 (0.390)
Staffing regulation: Public reporting	0.908** (0.382)	0.155 (0.420)	0.501 (0.320)	0.908** (0.382)
State fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Observations	16,919	16,919	16,919	16,918
R^2	.307	.535	.394	.390

Note. Robust standard errors clustered at hospital level. NA = nursing assistant; RN = registered nurse; LPN = licensed practical nurse; FTE = full-time equivalents.
*$p < .1$. **$p < .05$. ***$p < .01$.

variable HCOMP-C (*room cleanliness*), the marginal impact of NA hours per patient day is equal to $MP_{NA} = -1.032 + 0.416\,NA - 0.035\,NA^2$. The patterns fitting our data are shown in Fig 1.1. Similarly, for the dependent variable HCOMP-5 (*meds information*), the marginal impact of RN hours per patient day is equal to $MP_{RN} = -1.278 + 0.141\,RN - 0.003\,RN^2$, with the corresponding plot presented in Fig 1.2. Note that the initially negative marginal impacts become less negative as FTEs are increased leading to an improvement in patient satisfaction scores. Fig 1.1 and 1.2 also show that after reaching a certain threshold of FTE hiring, productivities of NAs and RNs turn positive further improving patient satisfaction scores.

Tables 5 and 6 show estimates of the marginal impacts of NAs and RNs at their respective hourly scales (10th, 25th, 50th, 75th, and 90th percentile). Table 5 demonstrates that the marginal impacts of NAs are higher for "patient support/housekeeping domain" measures compared with the patient management domain. For example, the marginal impact of NA hours is the greatest for HCOMP-C (*cleanliness*) and it is highly significant. At the 75th percentile (2.34 hours per day), their corresponding per hour marginal impact is about 0.33%, or 0.54% at the 90th percentile (3.20).

By contrast, the marginal impacts of RN hours is the greatest for HCOMP-3 (*promptness of help*) and it is highly significant (Table 6). Their per hour marginal impact is about 0.42% at the 50th percentile (6.9 hours per day) or 0.8% at the 75th percentile (8.53 hours per day). However, RNs are also noted as the only staffing category to have statistically significant impacts in the patient management domain, HCOMP-4 (*recovery information*) and HCOMP-5 (*pain control*).

In Table 7, we present the minimum number of NA and RN hours at which their marginal impact becomes positive, as well as the number of NA and RN hours at which the marginal impact of an extra hour per patient day is the greatest. Focusing on NA, we find that for the dependent variable HCOMP-C (*cleanliness*), the marginal impact of an extra NA hour per patient day becomes positive when the number of NA hours per patient day is equal to 1.5 and is maximized when the number of NA hours per patient day is equal to 4 (also see. Fig 1.1). Turning to RNs, for the dependent variable HCOMP-4 (*pain control*), the marginal impact of an extra RN hour per patient day becomes positive when the number of RN hours per patient day is equal to 4.9 and is maximized when the number of RN hours per patient day is equal to 13.3 (also shown in Fig 1.2).

As expected, we find evidence in favor of NAs having a comparative advantage in maximizing housekeeping/support outcomes compared with patient management. However, we

Table 3. Results: Impact of Nursing Staff Hours per Patient Day on Patient Management.

	(1)	(2)	(3)
	HCOMP-4 (*pain control*)	HCOMP-5 (*meds information*)	HCOMP-6 (*recovery information*)
(NA Hours per Adj. Pat Day)	−0.770** (0.310)	−0.824** (0.324)	−0.486** (0.237)
$(\text{NA Hours per Adj. Pat Day})^2$	0.241** (0.113)	0.276** (0.121)	0.113 (0.084)
$(\text{NA Hours per Adj. Pat Day})^3$	−0.020* (0.012)	−0.025** (0.013)	−0.008 (0.008)
(RN Hours per Adj. Pat Day)	−0.979*** (0.236)	−1.278*** (0.262)	0.177 (0.183)
$(\text{RN Hours per Adj. Pat Day})^2$	0.121*** (0.024)	0.141*** (0.027)	0.011 (0.018)
$(\text{RN Hours per Adj. Pat Day})^3$	−0.003*** (0.001)	−0.003*** (0.001)	−0.000 (0.001)
(LPN Hours per Adj. Pat Day)	0.239* (0.132)	0.297** (0.147)	−0.074 (0.098)
Total FTE personnel	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)
Total hospital beds	−0.005*** (0.001)	−0.008*** (0.001)	−0.005*** (0.001)
Urban hospital	−0.859*** (0.183)	−1.369*** (0.205)	−0.541*** (0.147)
Major teaching hospital	−1.240*** (0.283)	0.027 (0.285)	−0.645*** (0.237)
Private, not-for-profit	0.708*** (0.218)	0.353 (0.226)	0.407** (0.176)
Private, for-profit	−0.819*** (0.251)	−1.484*** (0.275)	−0.518** (0.207)
Case mix index	0.107*** (0.035)	0.093** (0.042)	0.237*** (0.026)
Staffing regulation: Mandate	−0.667 (0.502)	−1.129*** (0.350)	−2.094*** (0.357)
Staffing regulation: Committee	−0.347 (0.368)	−0.175 (0.410)	−0.067 (0.259)
Staffing regulation: Public reporting	0.843*** (0.310)	−0.058 (0.329)	0.018 (0.293)
State fixed effects	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes
Observations	16,077	16,913	16,917
R^2	0.245	0.330	0.458

Note. Robust standard errors clustered at the hospital level. NA = nursing assistant; RN = registered nurse; LPN = licensed practical nurse; FTE = full-time equivalents.
*p < .1. **p < .05. ***p < .01.

also find that NA hours are being deployed at levels that are "too low," namely, below the threshold needed to achieve positive marginal impacts.

Discussion

Using a national hospital-level dataset of 2,807 hospitals from 2008 to 2016, we estimated the effects of RN and NA hours on the HCAHPS patient satisfaction measures. To account for scale effects in each staffing category, we adopt a production function approach. Our results contain general implications for workforce policy and are relevant for hospital management and regulatory decision-making.

First, patient satisfaction scores would generally improve with increases in both RN and NA hours. However, in the case of NAs, we show that moderate improvements in patient satisfaction measures would require staffing levels that are well above the sample average. Second, to give a sense of the scale workforce policy would need to address for each workforce type, we also find that the number of hours associated with best outcomes (peak marginal impact), varies depending on the specific patient satisfaction indicator. For NAs, this ranges from 3.6 to 4.6 hours. For RNs, the range is from 11.7 to 15 hours. Third, although RNs are more impactful overall, there appear to be comparative advantages in the deployment of the two staff categories, whereby NAs are relatively more effective in the housekeeping/patient support domain (specifically in the *cleanliness* measure), while RNs are relatively more effective in the patient management domain.

Conclusions and Limitations

This study examines the role of staffing intensities in improving the patient experience in hospitals. We focus especially on the relative contribution of NAs, which has been somewhat overlooked in policy discussions and in the empirical literature. Generally, we find a similar pattern for RN and NAs, as they both exhibit initially increasing returns followed by decreasing marginal productivities. Although RNs tend to have higher marginal productivities overall, NAs appear to have a comparative advantage in improving satisfaction measures associated with housekeeping and support tasks. Moreover, when actual deployment of nursing staff is compared with the levels needed to significantly improve patient satisfaction scores, NAs appear to be the more underemployed labor input. This is somewhat surprising given the low cost of labor associated with NA employment.[7]

To date, state-level hospital staffing regulations have focused on RNs, but have not included requirements for NAs

Table 4. Results: Impact of Nursing Staff Hours per Patient Day on Overall Patient Satisfaction.

	(1)	(2)
	HCOMP-R (*top rating*)	HCOMP-A (*hospital recommended*)
(NA Hours per Adj. Pat Day)	−1.368** (0.582)	−1.555*** (0.520)
$(\text{NA Hours per Adj. Pat Day})^2$	0.396* (0.213)	0.419** (0.192)
$(\text{NA Hours per Adj. Pat Day})^3$	−0.031 (0.022)	−0.030 (0.020)
(RN Hours per Adj. Pat Day)	−1.147*** (0.436)	−1.268*** (0.380)
$(\text{RN Hours per Adj. Pat Day})^2$	0.196*** (0.044)	0.198*** (0.039)
$(\text{RN Hours per Adj. Pat Day})^3$	−0.006*** (0.001)	−0.005*** (0.001)
(LPN Hours per Adj. Pat Day)	−0.558** (0.247)	−0.257 (0.219)
Total FTE personnel	0.001*** (0.000)	0.001*** (0.000)
Total hospital beds	−0.010*** (0.001)	−0.012*** (0.001)
Urban hospital	2.553*** (0.399)	0.610* (0.332)
Major teaching hospital	−1.851*** (0.570)	−1.727*** (0.507)
Private, not-for-profit	1.713*** (0.428)	1.321*** (0.367)
Private, for-profit	−3.051*** (0.497)	−2.290*** (0.431)
Case mix index	0.867*** (0.065)	0.565*** (0.062)
Staffing regulation: Mandate	−0.242 (0.561)	−0.577 (0.504)
Staffing regulation: Committee	−0.294 (0.515)	0.135 (0.495)
Staffing regulation: Public reporting	0.805 (0.491)	0.754 (0.490)
State fixed effects	Yes	Yes
Year fixed effects	Yes	Yes
Observations	16,919	16,919
R^2	.332	.348

Note. Robust standard errors, clustered at the hospital level. NA = nursing assistant; RN = registered nurse; LPN = licensed practical nurse; FTE = full-time equivalents.
*$p < .1$. **$p < .05$. ***$p < .01$.

Table 5. Marginal Impacts of NA Hours per Adjusted Patient Day.

	Housekeeping/patient support				Patient management	
	(1)	(2)	(3)	(4)	(5)	(6)
NA hours (Percentile)	HCAHPS-C (*room cleanliness*)	HCAHPS-Q (*quietness*)	HCAHPS-1 (*communication*)	HCAHPS-3 (*promptness of help*)	HCAHPS-4 (*pain control*)	HCAHPS-5 (*meds information*)
0.65 (10%)	−0.54** (0.26)	−1.16*** (0.29)	−0.58*** (0.18)	−1.36*** (0.29)	−0.48*** (0.19)	−0.50** (0.19)
1.00 (25%)	−0.26 (0.18)	−0.84*** (0.20)	−0.38*** (0.12)	−0.85*** (0.20)	−0.32** (0.13)	−0.32** (0.13)
1.64 (50%)	0.05 (0.12)	−0.46*** (0.13)	−0.16** (0.08)	−0.30** (0.13)	−0.14* (0.08)	−0.12 (0.09)
2.34 (75%)	0.33*** (0.12)	−0.08 (0.15)	0.04 (0.09)	0.20 (0.13)	0.02 (0.08)	0.05 (0.09)
3.20 (90%)	0.54*** (0.15)	0.24 (0.18)	0.17 (0.11)	0.53*** (0.16)	0.15 (0.10)	0.17 (0.12)
Observations	16,919	16,919	16,919	16,918	16,077	16,913

Note. Standard errors in parentheses. NA = nursing assistant.
*$p < 0.1$. **$p < .05$. ***$p < .01$.

(Li et al., 2017). While we do not find positive contributions of these regulations to patient satisfaction, our findings on the importance of NAs in maximizing patient satisfaction suggest that the incentive structure for deploying NAs should be reexamined by policy makers and hospital managers.

Our findings are concordant with previous studies and professional association statements. These statements emphasize that given NAs preparation and competence, NAs are best suited to assist with patients' activities of daily living, clerical duties, housekeeping, and the maintenance of a healthy and safe environment. These statements also argue that it may not be appropriate to delegate activities that are core to the nursing process and that require specialized knowledge for instance the assessment of pain management (Association of Women's Health, Obstetric and Neonatal Nurses, 2016; New York State Nurses Association, 2007; Society of Gastroenterology Nurses and Associates, 2006; Zimmermann, 1995).

Table 6. Marginal Impacts of RN Hours per Adjusted Patient Day.

	Housekeeping/patient support				Patient management	
	(1)	(2)	(3)	(4)	(5)	(6)
RN hours (Percentile)	HCAHPS-C (*room cleanliness*)	HCAHPS-Q (*quietness*)	HCAHPS-1 (*communication*)	HCAHPS-3 (*promptness of help*)	HCAHPS-4 (*pain control*)	HCAHPS-5 (*meds information*)
4.27 (10%)	−0.48*** (0.10)	−0.62*** (0.12)	−0.17** (0.08)	−0.39*** (0.11)	−0.11 (0.08)	−0.24*** (0.09)
5.49 (25%)	−0.17** (0.07)	−0.18** (0.08)	0.07 (0.05)	0.02 (0.08)	0.08 (0.05)	−0.01 (0.06)
6.90 (50%)	0.15*** (0.05)	0.26*** (0.06)	0.29*** (0.04)	0.42*** (0.06)	0.26*** (0.04)	0.22*** (0.04)
8.53 (75%)	0.44*** (0.06)	0.68*** (0.07)	0.50*** (0.04)	0.80*** (0.07)	0.42*** (0.04)	0.45*** (0.05)
10.36 (90%)	0.68*** (0.07)	1.04*** (0.09)	0.66*** (0.05)	1.10*** (0.08)	0.55*** (0.05)	0.64*** (0.06)
Observations	16,919	16,919	16,919	16,918	16,077	16,913

Note. Standard errors in parentheses. RN = registered nurse.
*$p < .1$. **$p < .05$. ***$p < .01$.

Table 7. Threshold Values of NA and RN Hours per Patient Day.

	NAs		RNs	
	Marginal Impact ≥0 [a]	Peak marginal impact[b]	Marginal impact ≥0[a]	Peak Marginal Impact[b]
Housekeeping/patient support measures				
HCOMP-C (*cleanliness*)	1.547	3.921	6.212	14.329
HCOMP-Q (*quietness*)	2.528	4.65	6.044	14.977
HCOMP-1 (*communication*)	2.193	3.77	5.126	13.402
HCOMP-3 (*promptness of help*)	2.028	3.692	5.435	13.993
Patient management measures				
HCOMP-4 (*pain control*)	2.221	3.981	4.975	13.343
HCOMP-5 (*medicines information*)	2.096	3.648	5.551	15.042
Overall Patient Satisfaction Measures				
HCOMP-R (*top hospital rating*)	2.434	4.2	3.427	11.704
HCOMP-A (*hospital recommended*)	2.563	4.637	3.793	12.166

Note. NA = nursing assistant; RN = registered nurse.
[a]For each patient satisfaction measure, at these values of NA or RN hours per patient day, the marginal impacts are greater or equal than zero. Hours above these thresholds have positive marginal impacts. [b]Values correspond to the peak of the marginal product.

We also note the *limitations* of our analysis. While we attempt to fill an important gap in the literature by spotlighting the role of NAs, our results should not be interpreted as addressing the optimal deployment of nursing workforce from the perspective of minimizing costs or attaining managerial efficiency. Future research should incorporate analyses of hospital labor costs and revenues with studies of workforce productivity. This would shed further light on what the optimal mix of nursing types might be under different hospital budget constraints. Ultimately, appropriate policies will need to balance the competing objectives of the health care system.

Acknowledgments

The authors thank Ellen Kurtzman, Clese Erikson and Qian Luo for suggestions received during this research, and two anonymous reviewers for helpful comments.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This work was supported by a cooperative agreement with the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number U81HP26493. Avi Dor also acknowledges support from the Agency for Healthcare Research and Quality (AHRQ) under award number R01HS23610 Pricing of Hospital Cardiac Procedures: Impacts of Federal Quality Reports to the George Washington University. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS, AHRQ, or the U.S. Government.

ORCID iDs

Avi Dor https://orcid.org/0000-0003-4475-4333
Patricia Pittman https://orcid.org/0000-0003-2794-6528

Supplemental Material

Supplemental material for this article is available online.

Notes

1. Mazurenko et al. (2017, p. 273) report that "as of 2012, up to 1.75% of hospital reimbursement could be withheld based on performance on key metrics, one of them being patient satisfaction scores measured by the HCAHPS."
2. We exclude only two measures, one which pertains to doctors (communication) only, and another, "patient understanding" which was added in 2013.
3. Only 12 states had minimum staffing laws during our study period. Minimum nurse-to-patient ratios include mandates that require hospitals to maintain specific ratios of RNs to patients, staffing committees requiring the participation of staff RNs in RN staffing decisions, and finally public reporting legislation requiring hospitals to publish the number of RNs per patient on a hospital unit (de Cordova et al., 2019). California added minimum nurse-to-patient staffing ratios in 2003 and Massachusetts in 2014. RN-driven staffing committees were introduced in Oregon in 2008, Washington in 2008, Ohio in 2008, Illinois in 2009, Connecticut in 2009, Nevada in 2009, and in Texas in 2009. Public reporting of nursing staffing levels were introduced in Massachusetts in 2014, Minnesota in 2014, Illinois in 2009, New Jersey in 2004, Rhode Island in 2005, Vermont in 2005, and New York in 2010.
4. Our marginal impact estimates are not affected if we exclude nurses and NAs from total FTEs.
5. Major teaching hospitals are those that are part of the Council of Teaching Hospitals.
6. As a sensitivity test, we also rerun our model with fixed effects. Due to small within-hospital variation, the estimation of a fixed effects leads to considerable efficiency loss albeit without affecting the direction of our effects. These results are available on request from the corresponding author.
7. According to the Bureau of Labor Statistics, in 2017, the average hourly salary of NAs, LPNs, and RNs was $13.72, $21.98, and $35.36, respectively. In comparison, the federal minimum hourly wage was $7.25.

References

Aiken, L. H., Clarke, S. P., Sloane, D. M., Sochalski, J., & Silber, J. H. (2002). Hospital nurse staffing and patient mortality, nurse burnout, and job dissatisfaction. *Journal of the American Medical Association*, *288*(16), 1987-1993. https://doi.org/10.1001/jama.288.16.1987

American Hospital Association. (2018). *2018 AHA annual survey*. Author.

American Nurses Association. (2009). *Nurse staffing*. https://www.nursingworld.org/practice-policy/nurse-staffing/

American Nurses Association. (2012). *Principles for delegation by registered nurses to unlicensed assistive personnel (UAP)*. https://www.nursingworld.org/~4af4f2/globalassets/docs/ana/ethics/principlesofdelegation.pdf

Associated Press. (2018, July 13). Nurses at Vermont's largest medical center go on strike. *Modern Healthcare*. www.modernhealthcare.com/article/20180713/NEWS/180719952

Association of Women's Health, Obstetric and Neonatal Nurses. (2016). The role of unlicensed assistive personnel (nursing assistive personnel) in the care of women and newborns. *Journal of Obstetric, Gynecologic & Neonatal Nursing*, *45*(1), 137-139. https://doi.org/10.1016/j.jogn.2015.11.005

Badovinac, C. C., Wilson, S., & Woodhouse, D. (1999). The use of unlicensed assistive personnel and selected outcome indications. *Nursing Economic*, *17*(4), 194-200.

Bellury, L., Hodges, H., Camp, A., & Aduddell, K. (2016). Teamwork in acute care: Perceptions of essential but unheard assistive personnel and the counterpoint of perceptions of registered nurses. *Research in Nursing & Health*, *39*(5), 337-346. https://doi.org/10.1002/nur.21737

Carey, K. (1997). A panel data design for estimation of hospital cost functions. *Review of Economics and Statistics*, *79*(3), 443-453. https://doi.org/10.1162/003465300556850

Carey, K. (2000). Hospital cost containment and length of stay: An econometric analysis. *Southern Economic Journal*, *67*(2), 414-426. https://doi.org/10.2307/1061475

Carey, K., & Dor, A. (2008). Expense preference behavior and management "outsourcing": A comparison of adopters and non-adopters of contract management in U.S. hospitals. *Journal of Productivity Analysis*, *29*(1), 61-75. https://doi.org/10.1007/s11123-007-0065-3

Centers for Medicare & Medicaid Services. (2019). *HCAHPS: Hospital Consumer Assessment of Healthcare Providers and Systems*. https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/HospitalHCAHPS

Cho, S. H., Ketefian, S., Barkauskas, V. H., & Smith, D. G. (2003). The effects of nurse staffing on adverse events, morbidity, mortality, and medical costs. *Nursing Research*, *52*(2), 71-79. https://doi.org/10.1097/00006199-200303000-00003

de Cordova, P. B., Rogowski, J., Riman, K. A., & McHugh, M. D. (2019). Effects of public reporting legislation of nurse staffing: A trend analysis. *Policy, Politics, & Nursing Practice*, *20*(2), 92-104. https://doi.org/10.1177/1527154419832112

Dor, A., & Farley, D. E. (1996). Payment source and the cost of hospital care: Evidence from a multiproduct cost function with multiple payers. *Journal of Health Economics*, *15*(1), 1-21. https://doi.org/10.1016/0167-6296(95)00029-1

Goozner, M. (2018, July 21). Editorial: Turn support jobs into good jobs. *Modern Healthcare*. http://www.modernhealthcare.com/article/20180721/NEWS/180719888

Griffin, R. C., Montgomery, J. M., & Rister, M. E. (1987). Selecting functional form in production function analysis. *Western Journal of Agricultural Economics*, *12*(2), 216-227. https://ageconsearch.umn.edu/record/32240/files/12020216.pdf

Hockenberry, J. M., & Becker, E. R. (2016). How do hospital nurse staffing strategies affect patient satisfaction? *ILR Review*, *69*(4), 890-910. https://doi.org/10.1177/0019793916642760

Jensen, G. A., & Morrisey, M. A. (1986). Medical staff specialty mix and hospital production. *Journal of Health Economics*, *5*(3), 253-276. https://doi.org/10.1016/0167-6296(86)90017-2

Jones, E., Oliphant, T., & Peterson, P. (2001). *SciPy: Open source scientific tools for Python*. https://www.scienceopen.com/document?vid=ab12905a-8a5b-43d8-a2bb-defc771410b9

Kleinman, C. S., & Saccomano, S. J. (2006). Registered nurses and unlicensed assistive personnel: An Uneasy Alliance. *Journal of Continuing Education in Nursing*, *37*(4), 162-170. https://doi.org/10.3928/00220124-20060701-03

Li, S., Pittman, P., Han, X., & Lowe, T. J. (2017). Nurse-related clinical nonlicensed personnel in U.S. hospitals and their relationship with nurse staffing levels. *Health Services Research*, *52*(S1), 422-436. https://doi.org/10.1111/1475-6773.12655

Mark, B. A., Harless, D. W., McCue, M., & Xu, Y. (2004). A longitudinal examination of hospital registered nurse staffing and quality of care. *Health Services Research*, *39*(2), 279-300. https://doi.org/10.1111/j.1475-6773.2004.00228.x

Martsolf, G. R., Gibson, T. B., Benevent, R., Jiang, J., Stocks, C., Ehrlich, E. D., Kandrack, R., & Auerbach, D. I. (2016). An examination of hospital nurse staffing and patient experience with care: Differences between cross-sectional and longitudinal estimates. *Health Services Research*, *51*(6), 2221-2241. https://doi.org/10.1111/1475-6773.12462

Mazurenko, O., Collum, T., Ferdinand, A., & Menachemi, N. (2017). Predictors of hospital patient satisfaction as measured by HCAHPS: A systematic review. *Journal of Healthcare Management*, *62*(4), 272-283. http://dx.doi.org/10.1097/JHM-D-15-00050

Mitchell, J. M., & Carey, K. (2016). A comparison of ambulatory surgery center production costs and Medicare payments: Evidence on colonoscopy and endoscopy. *Medical Care*, *54*(2), 126-132. https://doi.org/10.1097/MLR.0000000000000466

Naylor, D., & Miller, W. (2018, July 22). Hundreds take to picket line as R.I. Hospital nurses strike begins. *Providence Journal*. https://www.providencejournal.com/news/20180722/hundreds-take-to-picket-line-as-ri-hospital-nurses-strike-begins-video

Needleman, J., Buerhaus, P., Mattke, S., Stewart, M., & Zelevinsky, K. (2002). Nurse-staffing levels and the quality of care in hospitals. *New England Journal of Medicine*, *346*(22), 1715-1722. https://doi.org/10.1056/NEJMsa012247

Nelder, J. A., & Mead, R. (1965). A simplex method for function minimization. *Computer Journal*, *7*(4), 308-313. https://doi.org/10.1093/comjnl/7.4.308

New York State Nurses Association. (2007). *Guidelines regarding utilization of licensed nurses. (RNs and LPNs) and Unlicensed Assistive Personnel (UAP) in the delivery of nursing care*. http://76.12.69.209/images/pdfs/practice/scope/rn_uap_guidelines04.pdf

Pittman, P., Leach, B., Everett, C., Han, X., & McElroy, D. (2018). NP and PA privileging in acute care settings: Do scope of practice laws matter? *Medical Care Research and Review*, *77*(2), 112-120. https://doi.org/10.1177/1077558718760333

Plawecki, L. H., & Amrhein, D. W. (2012). A question of delegation: Unlicensed assistive personnel and the professional nurse. *Journal of Gerontological Nursing*, *36*(8), 18-21. https://doi.org/10.3928/00989134-20100712-01

Potter, P., Deshields, T., & Kuhrik, M. (2010). Delegation practices between registered nurses and nursing assistive personnel. *Journal of Nursing Management*, *18*(2), 157-165. https://doi.org/10.1111/j.1365-2834.2010.01062.x

Price, R. A., Elliott, M. N., Zaslavsky, A. M., Hays, R. D., Lehrman, W. G., Rybowski, L., Edgman-Levitan, S., & Cleary, P. D. (2014). Examining the role of patient experience surveys in measuring health care quality. *Medical Care Research and Review*, *71*(5), 522-554. https://doi.org/10.1177/1077558714541480

Secretary of the Commonwealth of Massachusetts. (2018). *2018 Ballot questions*. https://www.sec.state.ma.us/ele/elepdf/IFV_2018.pdf

Shrestha, R. B., & Gopalakrishnan, C. (1991). Water-use efficiency under two irrigation technologies: A quadratic production function analysis. *International Journal of Water Resources Development*, *7*(2), 133-137. https://doi.org/10.1080/07900629108722504

Society of Gastroenterology Nurses and Associates. (2006). *SGNA position statement: Role delineation of unlicensed assistive personnel in gastroenterology*. https://www.nursingcenter.com/journalarticle?Article_ID=634881&Journal_ID=54035&Issue_ID=634846

Spetz, J., Donaldson, N., Aydin, C., & Brown, D. S. (2008). How many nurses per patient? Measurements of nurse staffing in health services research. *Health Services Research*, *43*(5p1), 1674-1692. https://doi.org/10.1111/j.1475-6773.2008.00850.x

Spetz, J., Harless, D. W., Herrera, C.-N., & Mark, B. A. (2013). Using minimum nurse staffing regulations to measure the relationship between nursing and hospital quality of care. *Medical Care Research and Review*, *70*(4), 380-399. https://doi.org/10.1177/1077558713475715

Stanton, M. (2004). *Hospital nurse staffing and quality of care*. https://archive.ahrq.gov/research/findings/factsheets/services/nursestaffing/nursestaff.pdf

Thurston, N. K., & Libby, A. M. (2002). A production function for physician services revisited. *Review of Economics and Statistics*, *84*(1), 184-191. https://doi.org/10.1162/003465302317332017

Tong, P. K. (2011). The effects of California minimum nurse staffing laws on nurse labor and patient mortality in skilled nursing facilities. *Health Economics*, *20*(7), 802-816. https://doi.org/10.1002/hec.1638

Wagner, E. A. (2018). Improving patient care outcomes through better delegation-communication between nurses and assistive personnel. *Journal of Nursing Care Quality*, *33*(2), 187-193. https://doi.org/10.1097/NCQ.0000000000000282

Wooldridge, J. M. (2015). *Introductory econometrics: A modern approach*. Nelson Education.

Yunker, J. A. (2012). Technical note: Properties of the cubic production function. *The Engineering Economist*, *57*(3), 206-220. https://doi.org/10.1080/0013791X.2012.702196

Zimmermann, P. G. (1995). Increased use of unlicensed assistive personnel: Pros and cons. *Journal of Emergency Nursing*, *21*(6), 541-549. https://doi.org/10.1016/S0099-1767(05)80271-5

The NEW ENGLAND JOURNAL of MEDICINE

Perspective

Unethical International Nurse-Staffing Agencies — The Need for Legislative Action

Patricia Pittman, Ph.D., and Adam R. Pulver, J.D.

After passage by the U.S. House of Representatives, the Senate is currently considering the Fairness for High-Skilled Immigrants Act (H.R.1044 and S.386), which would, among other things, remove the 7% cap on employment-based visas for immigrants from any single country and raise family caps from 7% to 15%. The international nurse-staffing industry and the American Hospital Association are conditioning their support for the bill on the inclusion of "a carve-out from visa caps for a reasonable number of immigrant nurses each year." Without such a set-aside, they argue, the elimination of the cap on employment-based visas would result in most visas going to Indian and Chinese technology-sector workers and would thus increase wait times for other visa seekers, such as Filipino nurses. In 2018, about 5% of nurses who passed the registered nurse licensure test on their first try (7505 of 151,617) were international nurses, and about 63% of those were Filipino.[1]

Negotiators have settled on 4400 visas carved out per year for nurses and additional visas for their family members. If enacted, this policy would represent a huge win for the international nurse-staffing industry. It would also probably exacerbate a chronic problem of unfair labor practices in this sector of the staffing industry. Before visa carve-outs for international nurses are created, we believe that rules should be established to prevent recruitment and staffing agencies from engaging in practices that exploit these workers.

A recent court decision sheds light on some of these abusive practices. On September 24, 2019, a federal judge ruled that a New York nurse-staffing agency violated the Trafficking Victims Protection Act with respect to more than 200 nurses recruited from the Philippines.[2] The court found that a $25,000 "liquidated damages" provision that the agency included in nurses' contracts was unlawful and that by suing nurses to enforce this provision when they resigned, the agency was using "threats of serious harm" to coerce nurses into continuing to work for it, despite allowing nurses to work in unsafe conditions with low nurse-to-patient staffing ratios and paying them lower-than-required wages. We believe that this class-action lawsuit is the first resulting in a finding of liability for a nurse-recruiting company under the Trafficking Victims Protection Act. In 2013, a

jury found a Colorado man guilty of criminal charges on the basis of actions he took in connection with the recruitment of Filipino nurses.[3]

The contract terms that were at issue in the New York case are frequently used by international nurse-staffing agencies. At the core of these agencies' model is the use of high contract-breach fees, which serve to hold immigrant nurses captive for 3 or more years. In guidance to governments, the International Labor Organization recommends prohibiting such fees because they create debt bondage and effectively prevent workers from leaving a job.[4]

In our review of dozens of nurses' cases, we found that high breach fees go hand in hand with other problems. For example, it is not uncommon for an agency to have no job available when the nurse arrives, and weeks or months may pass before the nurse receives an assignment — and a paycheck. During that period, and during periods between assignments, the nurse is prohibited from seeking other employment. Many contracts also stipulate that the weeks and months during which the nurse has no assignment (and isn't paid) don't count toward the completion of the contract period, which means that nurses could theoretically be held captive indefinitely. Similarly, if nurses (and their families) are told to move to a new assignment in a new region of the country, they have no recourse. To thwart attempts to report these abuses, many agencies' contracts prohibit nurses from bringing lawsuits against them in federal court.

In contrast, lawsuits seeking damages against immigrant nurses who resign are rampant. Two companies alone, MedPro and Health Carousel, are responsible for at least 120 lawsuits in the past 5 years in Florida and Ohio, respectively, according to county court records. Most of these nurses lack sufficient knowledge of the U.S. legal system and access to lawyers to represent them and therefore end up in default when they are sued — which results in their bank accounts being seized and their wages garnished. In the rare cases in which nurses find lawyers to represent them, the companies often back down and offer a reduced financial penalty in exchange for silence, thereby avoiding bad press and a potential court decision expressly invalidating their practices. As a result, there are very few cases involving nurse-staffing agencies that have been won by nurses or litigated on the merits.

Hospital administrators in the process of redesigning care to meet the demands of outcomes-based payment structures know that nurses' work environment is a key predictor of patient outcomes.[5] For the international nurses held captive by contracts, the stress of adapting to a new country is exacerbated by the realization that they are being treated differently from their nonimmigrant colleagues and have no power to improve their situation. The effects of various provisions of international nurse-staffing agencies' contracts on patients have not been assessed, but as the TIME'S UP Healthcare movement has emphasized, inequality in the workplace negatively affects quality of care. In the case of recently arrived international nurses, being coerced into working in a particular facility hardly facilitates healthy relationships with coworkers.

One reason this problem has gone unnoticed is that almost all nurses recruited to the United States receive employment-based green cards. The absence of adequate regulatory oversight reflects a presumption that, once in the country, green-card holders are free to change jobs at will and that this freedom will protect them from the most abusive practices. But this presumption doesn't match the reality for many newly recruited nurses.

The current legislative debate presents a window of opportunity to address the unfair treatment of many workers. If Congress is going to reserve 4400 visas for immigrant nurses, we believe that recruitment and staffing agencies should be required to compete in a free and fair labor market with other potential employers. If a staffing agency wants to retain international nurses, it should have to do what other employers do: provide competitive wages and working conditions. Current practices are not only unethical, but they also potentially undercut labor-market dynamics for domestic nurses as well.

We suggest that Congress consider five key measures for any legislation authorizing additional visas for international nurses. First, in keeping with International Labor Organization standards, no recruitment or contract-breach fees should be permitted, and all U.S. government visa fees should be covered by employers. Second, contracts should not exceed 12 months. Third, nurses should have a job offer at a specific organization and in a specific location before coming to the United States and should be provided with a copy of their signed contract. If the job they had been offered no

longer exists when they arrive in the United States, nurses should be under no obligation to sign a new contract. Fourth, the job (or payment) should begin within 1 week after a nurse's arrival in the United States, and nurses should be paid continuously during the contract period, including training and orientation and any "benching" period between assignments. Finally, contracts should not prohibit nurses from bringing legal claims in any court that would have jurisdiction.

The wages and conditions in contracts used by many of the largest international staffing agencies are discriminatory. Nonimmigrant nurses would not agree to such conditions. In the 21st century, it is unconscionable that a staffing agency would use the threat of a financial penalty, or debt bondage, to force nurse retention.

Disclosure forms provided by the authors are available at NEJM.org.

From the Fitzhugh Mullan Institute for Health Workforce Equity, Milken Institute School of Public Health, George Washington University (P.P.), and Public Citizen Litigation Group (A.R.P.) — both in Washington, DC.

This article was published on January 22, 2020, at NEJM.org.

1. National Council of State Boards of Nursing. 2018 NCLEX examination statistics. June 2019 (https://www.ncsbn.org/2018_NCLEXExamStats.pdf).
2. Paguirigan v. Prompt Nursing Employment Agency LLC, et al., 17 Civ. 1302 (E.D.N.Y. Sept. 24, 2019).
3. United States v. Kalu, No. 12-cr-00106-MSK (D. Colo.)
4. Findings from the global comparative study on the definition of recruitment fees and related costs. Geneva: International Labor Organization, 2018 (https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---travail/documents/meetingdocument/wcms_646693.pdf).
5. Aiken LH, Clarke SP, Sloane DM, Lake ET, Cheney T. Effects of hospital care environment on patient mortality and nurse outcomes. J Nurs Adm 2008;38:223-9.

DOI: 10.1056/NEJMp1913727

Nurs Admin Q
Vol. 45, No. 3, pp. 179–186

Value-Based Payment
What Does It Mean for Nurses?

Patricia Pittman, PhD, FAAN;
Betty Rambur, PhD, RN, FAAN; Susan Birch, MBA, RN;
Garrett K. Chan, PhD, APRN, FAEN, FPCN, FCNS, FNAP, FAAN;
Cindy Cooke, DNP, FNP-C, FAANP;
Mollie Cummins, PhD, RN, FAAN, FACMI;
Colleen Leners, DNP, APRN, FAAN, FAANP;
Lisa Kane Low, PhD, RN, CNM, FACNM, FAAN;
Mikki Meadows-Oliver, PhD, MHP, PNP-BC, RN;
Mona Shattell, PhD, RN, FAAN;
Cheryl Taylor, PhD, RN, FAAN;
Deborah Trautman, PhD, RN, FAAN

Among the many lessons that have been reinforced by the SARS-COVID-19 pandemic is the failure of our current fee-for-service health care system to either adequately respond to patient needs or offer financial sustainability. This has enhanced bipartisan interest in moving forward with value-based payment reforms. Nurses have a rich history of innovative care models that speak to their potential centrality in delivery system reforms. However, deficits in terms of educational preparation, and in some cases resistance, to considering cost alongside quality, has hindered the profession's contribution to the conversation about value-based payments and their implications for system change. Addressing this deficit will allow nurses to more fully engage in redesigning health care to better serve the physical, emotional, and economic well-being of this nation. It also has the potential to unleash nurses from the tethers of a fee-for-service system where they have been relegated to a labor cost and firmly locate nurses in a value-generating role. Nurse administrators and educators bear the responsibility for preparing nurses for this next chapter of nursing. **Key words:** *alternative payment models, health workforce, nurses, value-based care, value-based payment*

Author Affiliations: *The George Washington University, Washington, District of Columbia (Dr Pittman); The University of Rhode Island, Kingston (Dr Rambur); Washington State Health Care Authority, Olympia (Ms Birch); HealthImpact and the University of California, San Francisco (Dr Chan); University of Mary, Bismarck, North Dakota (Dr Cooke); The University of Utah, Salt Lake City (Dr Cummins); American Association of Colleges of Nursing, Washington, District of Columbia (Drs Leners and Trautman); University of Michigan, Ann Arbor (Dr Low); Quinnipiac University, Hamden, Connecticut (Dr Meadows-Oliver); Johns Hopkins University, Baltimore, Maryland (Dr Shattell); and Southern University and A & M College, Baton Rouge, Louisiana (Dr Taylor).*

The authors are members of the American Association of Colleges of Nursing (AACN) Health Policy Advisory Committee (HPAC), HPAC lead staff, and AACN president. The article represents the views of authors and does not necessarily represent AACN's official views. One of the authors is a member of the Medicare Payment Advisory Commission (MedPAC). The article does not necessarily represent MedPAC.

The authors declare no conflict of interest.

Correspondence: *Patricia Pittman, PhD, FAAN, The George Washington University, 2175 K St, Suite 200, NW, Washington, DC 20052 (ppittman@gwu.edu).*

DOI: 10.1097/NAQ.0000000000000482

THE YEAR 2020 heralded a time of dramatic change, causing many Americans to reassess their values and way of life. Social injustice, polarized politics, and environmental disasters combined with the novel

SARS-COVID-19 pandemic, which has had grave health and economic consequences. Many health care organizations furloughed health care workers, including nurses,[1] even as other settings strained to meet the surge in SARS-COVID-19 patients. In addition, the record levels of business closures and resultant unemployment have meant that an estimated 14.6 million people lost employer-based insurance in just the first few months of the pandemic.[2]

This confluence of events has resulted in a growing recognition that US health care, already the most expensive in the world, is poorly designed to meet the health, social, and economic challenges of 2020. In particular, the pandemic laid bare the widespread and systemic nature of health inequities in the United States and brought to light the reality of chronically underfunded public health infrastructure.

At the heart of this failed system is fee-for-service (FFS) reimbursement, whereby each intervention, action, or service is financially compensated. Fee-for-service reimbursement is a major reason for the mismatch between needed services and their availability, as well as the tragic paradox of overtreatment and undertreatment in the United States. Under FFS reimbursement, providers are financially rewarded for the *volume* of services provided, regardless if that service has *value* in the form of favorable outcomes. Similarly, as we have seen during the pandemic, hospitals are excessively reliant on elective procedures, particularly, the most intensive and expensive ones, for financial sustainability. This emphasis on census volume and surgery-based procedures as leading sources of income for hospital systems has made the value of nursing care dependent on these distorted missions, rather than on the important areas of proven nurse value, such as preventing never events, pressure ulcers, falls with injuries, and so forth. These years of perverse financial incentives, and the recognition that the skewed investments in health and social spending are making it difficult to compete globally, have led to a realization that we must move to value-based payments (VBPs), and COVID-19 has magnified the need to keep moving in this direction. Given how little the 2 major US political parties agree upon, it is encouraging that VBP reforms have widespread bipartisan support.

Calls for payment reforms that emphasize value over volume have emerged amid mounting evidence of the problem of low-value care and waste in the United States, with studies consistently finding 25% to 30% of care to be wasteful,[3] or roughly $1 trillion per year. While this waste is realized as income to providers, it comes at a steep price for our nation as a whole. Taxpayers contribute substantially through the cost of governmental insurance (Medicare, Medicaid, CHIPS, Tricare). The expense is also borne by workers who receive health insurance through their employer. Given cost shifting, employer-based insurance functions as a hidden tax on employees. Moreover, employers are increasingly adopting insurance plans with high cost sharing, leaving consumers with increasing copayments and deductibles.

In response to evidence of waste, a variety of waste-reducing programs have been instituted, and more programs are anticipated. The Table describes some of the main characteristics of FFS reimbursement, episode-based payment such as bundled payment, population-based payment such as Accountable Care Organizations, and advanced primary care models. These, together with programs such as Hospital Value-Based Purchasing, attempt to better align the case for quality with economic incentives. Based on experience to date with various models, the federal government is currently most interested in alternative payment models that are mandatory, such as some bundled payment programs, and incorporating a downside risk for providers as well as the upside savings elements.[5]

DEVELOPING NURSING'S RESPONSE TO VBPs

For nursing, the question that has been discussed for some time now is "what will payment reform based on value mean for the evolving role of different types of nurses?" In theory, VBPs should mean that nurses will

Table. Payment Models and Their Incentives

Payment model	Fee for service: Single payment per each service with no provider financial risk or defined outcome accountability	Episode-based payments (bundled payments): Single lump sum reimbursement across entire episode of care (hospitalization, rehospitalization, procedures, post-acute care, readmissions, medications, devices, etc)	Population-based payments (Medicare Shared Savings Program and Next Generation Accountable Care Organizations): Payments based on cost and outcomes of care, with incremental move toward risk sharing and risk bearing	Advanced primary care models (Comprehensive Primary Care Plus and Primary Care First-Gen): More care management fees on a PMPM basis and option of shifting from FFS to capitated payments)
Incentives	Incentivizes increased use of resources without consideration of cost or value	Incentivizes (1) care coordination, (2) adoption of best practices, and (3) meticulous discharge planning	Potentially incentivizes high-value nonintervention care (eg, watchful waiting) and nurse-led care/chronic condition management. Incentive for nonintervention care parallels the amount of risk sharing and is highest in full risk bearing	Incentivizes diversification of care team with emphasis on outreach and prevention and under capitation potentially enhances economic stability as well as risk for providers

Abbreviations: FFS, fee for service; PMPM, per member per month.

have an opportunity to decrease unnecessary and low-value care and enhance efficiency and effectiveness in ways that advance the health and well-being of our nation. Value-based nursing knowledge has the potential to reshape the delivery system to address upstream social determinants of health, coordinate care across the continuum, and provide services in the least restrictive and least expensive environment. These advancements are key to addressing the 3 major challenges our nation faces as we gain control of the pandemic: behavioral health disorders, chronic diseases (including a possible COVID-19 syndrome), and the undeniable racial and ethnic disparities that have been historically ignored by the health care system.

Nurses are not new to delivery system innovations. The American Academy of Nursing Edge Runner Series, for example, has documented more than 60 models of care that are evidence-base, nurse-designed care models that span a broad array of program type, populations, and settings (see https://www.aannet.org/initiatives/edge-runners/initiativesedge-runnersprofiles-by-focus for full list). These notable models illustrate nursing's capacity to improve health care

quality, enhance people's satisfaction with care, and lower cost. Specific ways in which nurses offer value that can inform health systems response to new payment models include the following:

Complex care

The Complex Care Center is a nurse-led model that focuses on the most complex patients by mentoring and maximizing existing resources in their circle of care. It links providers in the context of a patient care plan and includes social determinants of health, such as housing, transportation, financial barriers, or mental health/trauma. Importantly, this approach aims to change the system, rather than just patients' behavior. In a study of 1000 patients, over 12 months, the model resulted in greater than 40% reduction in inpatient admissions and emergency department visits, a $1 million improvement in the operating margin, and a 23% return on investment.[6]

Midwifery-based maternity care

Many large purchasers on the West Coast are using new models of bundled maternity care based on certified nurse midwives and doulas. The aim is to reduce the overmedicalization, including the reduction of cesarian deliveries, and to improve patient engagement. The Pacific Business Group on Health developed a blueprint for action that outlines strategies to increase access to midwifery services.[7]

Nurse-to-nurse modeling transitions in care

The transition to Vermont's All-Payer Model, a statewide accountable care organization (ACO) modeled after Next Generation Accountable Care Organizations but inclusive of Medicaid and commercial insurance,[8] led one small rural hospital to reconceptualize its role to include the concept of an "Accountable Community." Guided by a community board, this largely nurse-led initiative incorporates a whole person, whole life orientation that includes transitional care nursing, community health teams, a program that trains nursing assistants to detect changes in people's conditions to reduce hospitalizations, home safety, and a broad complement of health professionals and paraprofessionals. In addition to a wide array of positive health and patient satisfaction outcomes, the team reports a 56% reduction in hospital readmissions.[9]

Home visits by nurse practitioners and registered nurses

The Huntsman at Home project at Utah's Huntsman Cancer Institute, for example, used nurse practitioners to deliver acute-level treatment to patients with cancer in their own homes. A robust evaluation study of more than 300 patients showed substantial reductions in unplanned hospitalizations, total length of hospital stay, and health care costs for hospital-at-home patients compared with the usual care comparison group.[10]

Public health nursing

Our nation's public health nurses play a critical role in advancing the health of populations through prevention, health promotion, and emergency preparedness, including response to epidemics such as SARS-CoV-2. A 2008 Robert Wood Johnson report indicated that fully 25% of the nation's public health workforce consists of nurses.[11]

Telehealth and mHealth

Technologies for remote sensing and communication through telehealth and mHealth (mobile and wireless technologies) hold great potential to improve access to care for people living in rural and underserved areas and to ameliorate rural and ethnic/minority health disparities.[12] They are often delivered by nurses, and the expansion of these technologies, and more recently, the expansion of payment for these services during the COVID-19 pandemic has created an abundance of opportunities for nursing to provide health care that can improve outcomes at lower cost.[13]

Across and beyond these models, studies are emerging that describe how VBPs could lead health care organizations and payers to see nursing expertise differently. Several studies describe nurses being "activated" in new roles and new jobs, as well as the idea that all team members (nurse support staff included) must be called upon to practice to the full extent of their education and license.[14-16] There is also some evidence that VBPs lead to a progressive shift from reliance on physicians to an expanded use of nurse practitioners and physician assistants in primary care, especially in safety net settings, and in settings that have been accredited as primary care medical homes.[17] Care coordination and care transitions have become essential functions for hospitals and ACOs, and these roles are often filled by nurses. In addition, the basis for these programs is patient risk segmentation and other big data analyses, an area often overseen by a nurse serving as the director of population health.[18]

THE COST PROBLEM

While nurses, as individuals and as a profession, have much to gain from the move toward VBPs, there are structural, cognitive, and atavistic barriers to full adoption of value-based care by nurses. Structurally, nurses are often employed in settings with volume-driven health care, for example, hospitals. Cognitively, they have not been educationally prepared to observe, critique, and correct financing and delivery mechanisms that drive low-value, high-cost care. If value equals cost and quality, while nurses are schooled in quality, they have to start understanding cost and risk sharing with payers. Finally, the deepest barrier may be tied to nursing's professional identity. Generations of nurses have been socialized to believe that their role is to focus on the person directly in front of them and maximize that person's care; for many nurses, even considering costs of care has sometimes been viewed as unethical. The time has come to change that mindset. It is critical for nurses to engage in the conversations about value and to participate in and sometimes lead processes of delivery system change.

Cost considerations are not inherently good or bad. Coupled with a focus on health outcomes, cost considerations are at the heart of value-based care and represent an essential corrective action.[19] Importantly, cost consideration does not inherently mean avoidance of expensive treatments but instead focuses on the value-added health outcome that is accomplished in response to the treatment. Cost consideration also requires comparison to other treatment options, including the often-ignored approach of thoughtful and watchful waiting. Examples abound where doing "less," not "more," is the right approach, such as in maternity care where overuse of procedures such as cesarean birth in low-risk pregnancies increases morbidity and mortality.[20,21]

Given the magnitude of medical error in the United States, calculated as the third leading cause of death,[22] avoidance of unnecessary and wasteful care is an urgent ethical responsibility. This central premise of health care ethics, nonmaleficence ("do no harm"), is paired with a more nuanced adoption of beneficence ("do good"—create a benefit). The best idea in the world cannot create a benefit if there is no way to pay for it.

RECOMMENDATIONS

To address the resistance within nursing to including cost as an inherent element in the value proposition, and to enhance the role of nurses as protagonists of systems reforms, nursing leadership must develop its own plan. The plan must attend closely to nurse administrators and nurse educators, roles that hold a particular responsibility for ensuring that nursing is ready to contribute to these changes.

Nurse administrators play a vital role in making the cost of care transparent to the health care team, but tracking costs is not simple. One challenge is the difference between the actual costs associated with care and supplies and what the health care agency

charges patients and insurers. Furthermore, those charges are variable across payers. Also complicating the landscape is the fact that the American Hospital Association has sued the federal government to halt cost transparency requirements scheduled to go into effect from January 1, 2021, a lawsuit federal judges rejected. However, solutions are rapidly developing.[23]

Nurses can help their organizations develop programs that succeed in a cost-transparent, value-focused world. While we know that people often do not understand how, or have the time to seek out data on prices, they will be increasingly expected to do so.[24] As cost sharing increases and the US economy struggles, nurses can serve as patient advocates by supporting the process of becoming more value-conscious. For this to occur, nurses themselves must become more value-conscious and thinking that to do so is not altruistic must be eliminated.

The American Organization for Nursing Leadership created competencies for nurse managers,[25] nurse executives,[26] post-acute care,[27] and system chief nurse executives[28] that include health care economics, value-based purchasing, revenue, and reimbursement. However, these competencies do not explicitly include measurement of value, including cost, outcomes, and patient satisfaction. Nurse administrator education, continuing education, and competencies could address this gap by adding competencies relating to the measurement and acumen for managing costs while increasing access and quality.

There are also opportunities to leverage change in the incumbent nurse workforce through performance improvement projects that seek improved patient satisfaction and care outcomes, while reducing costs through operational improvements. One well-known approach is Lean, which focuses on the reduction of 8 types of waste: waiting/idle time; inventory; defects; transportation of patients, supplies, and equipment; motion; overproduction; overprocessing, and untapped human potential.[29] In calculating the reduction of waste, nurses may need additional training in cost analyses. Regardless, of the approach, nurses' professional associations and organizations could design and offer continuing education modules for credit nationwide to inform the current nurse workforce (from public health nurses to nurse practitioners and hospital-based nurses) of the complexity, models, and benefits of value-based care.

Among nurse educators, there are also deficits. Most have not been systematically prepared to analyze and reform care processes to enhance value. This makes it difficult to lead curricular redesign and student learning. A nationwide "educate the educators" workshop series that laces health economics, policy and payment reform, and workforce development, as well as the ethical imperative of addressing costs, would be an important first step toward a more equitable and sustainable US health system. Optimally, these sessions would include nurse administrators who can help educators understand the complexity of leading in systems that have an array of payment models, each with different—and sometimes competing—financial incentives.

This backdrop would optimally catalyze baccalaureate and practice doctorate competencies that support care redesign, system innovation, and value-conscious care. The fundamental challenge of this reorientation of baccalaureate education should not be underestimated. Many nursing programs have a disproportionate amount of education in hospital and other traditional settings, where novices learn to execute orders, including standing orders, rather than to evaluate, critique, and redesign. There is inadequate attention to population health and health systems. Ideally, a new baccalaureate graduate would be asked in his or her job interview about what ideas he or she might have to help prevent unnecessary hospitalizations, improve outcomes in post-acute care, or more generally contribute to a risk-bearing ACO, or a nurse-based bundled payment program.

The doctor of nursing practice education typically incorporates more content on systems redesign and the triple/quadruple aim

inclusive of cost and better outcomes. However, more can be done, beginning with an audit by faculty to ensure that value-based practice skills are built progressively throughout the curriculum.

CONCLUSION

Value-based care has the potential to unleash nurses from the tethers of an FFS system that has relegated them to a labor cost, as opposed to a revenue generator. In all-inclusive total cost-of-care models, the most obverse model from FFS reimbursement, all health services—regardless if delivered by physicians, nurses, or physical therapists—are costs. This shift is critical to nursing's professional security, because when financial times are tough and cost reductions needed, as we have seen again in 2020, labor is the first area targeted. Nurses lose jobs. But more importantly, the change is critical to the mission of nursing as a profession, in particular, its commitment to addressing not just individual patients' needs but understanding and addressing health and health care in the context of family, community, and the social determinants of health.

We know that an aging society, like the United States, is desperately in need of care-based models (nursing), rather than disproportionately cure-based strategies, such as surgery and invasive interventions. Similarly, we know that mental health and substance abuse disorder, complex chronic diseases, and the growing health disparities cannot be adequately addressed with a simple medical cure. Public health, upstream, and other wraparound approaches are needed to address these problems. Value-based care, when properly implemented, provides an opportunity for nurses to enhance the role of nursing care and to help redesign the health care delivery system to better serve the physical, emotional, and economic well-being of this nation. Nurse administrators and educators bear the responsibility for preparing nurses for this next chapter of nursing.

REFERENCES

1. Gooch K. Record number of healthcare workers laid off, furloughed during pandemic. *Becker's Hospital Review*. https://www.beckershospitalreview.com/workforce/record-number-of-healthcare-workers-laid-off-furloughed-during-pandemic.html. Published June 5, 2020. Accessed November 4, 2020.
2. Fronstin P, Woodbury S. How many have lost jobs with employer coverage during the pandemic. *Commonwealth Foundation*. https://www.commonwealthfund.org/publications/issue-briefs/2020/oct/how-many-lost-jobs-employer-coverage-pandemic. Published October 7, 2020. Accessed November 4, 2020.
3. Shrank WH, Rogstad TL, Parekh N. Waste in US health care system. Estimated costs and potential for savings. *JAMA*. 2019;322(15):1501-1509. doi:10.1001/jama.2019.13978.
4. Berwick DM, Hackbarth AD. Eliminating waste in US health care [published online ahead of print March 14, 2012]. *JAMA*. 2012;307(14):1513-1516. doi:10.1001/jama.2012.362.
5. Spanko A. Verma: alternative payment model performance "deeply concerning," more mandatory programs ahead. *Skilled Nursing News*. https://skillednursingnews.com/2020/10/verma-alternative-payment-model-performance-deeply-concerning-more-mandatory-programs-ahead/. Published October 15, 2020. Accessed November 4, 2020.
6. Hardin L. Complex Care Center, American Academy of Nursing Edge Runners. https://www.aannet.org/initiatives/edge-runners/profiles/edge-runners-complex-care-center. Published 2015. Accessed November 4, 2020.
7. Pacific Business Group on Health. Transform maternity care. https://www.pbgh.org/maternity. Published November 10, 2020. Accessed April 27, 2021.
8. Backus E, Gobeille A, Hogan C, Holmes J., Rambur B. The All—Payer Accountable Care Organization: an opportunity for Vermont and exemplary for the nation. *Health Affairs Blog*. http://healthaffairs.org/blog/2016/11/22/the-all-payer-accountable-care-organization-model-an-opportunity-for-vermont-and-an-exemplar-for-the-nation/. Published November 22, 2016. Accessed April 22, 2021.
9. Allard BL, Accountable community of health. Edge Runner, American Academy of Nursing. https://www.aannet.org/initiatives/edge-runners/profiles/edge-runners-accountablecommunity. Published 2015. Accessed November 4, 2020.
10. Mooney K, Titchener K, Haaland B, et al. The oncology hospital at home: health care utilization

outcomes from the Huntsman at Home trial. *J Clin Oncol*. 2020;38(suppl):2020. doi:10.1200/JCO.2020.38.15_suppl.7000.

11. Fauteux N. Strengthening public health nursing—part 1. *Charting Nursing's Future*. https://www.rwjf.org/en/library/research/2008/09/cnf-strengthening-ph-nursing-part-one.html. Published 2008. Accessed November 4, 2020.
12. Probst JC, Moore CG, Glover SH, Samuels ME. Person and place: the compounding effects of race/ethnicity and rurality on health. *Am J Public Health*. 2004;94(10):1695-1703.
13. Sullivan DH. Technological advances in nursing care delivery. *Nurs Clin North Am*. 2015;50(4):663-677. doi:10.1016/j.cnur.2015.07.005.
14. Buerhaus PI, DesRoches CM, Dittus R, Donelan K. Practice characteristics of primary care nurse practitioners and physicians. *Nurs Outlook*. 2015;63(2)144-153. doi:10.1016/j.outlook.2014.08.008.
15. Fraher E, Spetz J, Naylor M. Nursing in a transformed health care system: new roles, new rules. Robert Wood Johnson Foundation Interdisciplinary Nursing Quality Research Initiative. https://ldi.upenn.edu/sites/default/files/pdf/inqri-ldi-brief-nursing.pdf. Published 2015. Accessed November 24, 2018.
16. Pittman P, Forrest E. The changing role of RNs in Pioneer ACOs. *Nurs Outlook*. 2015;63(5):554-565.
17. Park J, Wu X, Frogner BK, Pittman P. Does the patient-centered medical home model change staffing and utilization in the community health centers? *Med Care*. 2018;56(9):784-790.
18. Erikson C, Pittman P, LaFrance A, Chapman S. Alternative payment models lead to strategic care coordination workforce investments. *Nurs Outlook*. 2017;65(4):1-9.
19. Institute of Medicine (US) Roundtable on Value & Science-Driven Health Care. In: Yong PL, Olsen L, McGinnis JM, eds. *Value in Health Care: Accounting for Cost, Quality, Safety, Outcomes, and Innovation*. Washington, DC: The National Academies Press; 2010.
20. Armstrong J, Kozhimanni K, McDermott P, Saade G, Srinivas S. Comparing variation in hospital rates of cesarean delivery among low-risk women using three different measures. *Am J Obstet Gynecol*. 2015;214(2):53-163.
21. Jolles DR. Unwarranted variation in utilization of cesarean birth among low-risk childbearing women. *J Midwifery Womens Health*. 2017;62(1):49-57. doi:10.1111/jmwh.12565.
22. Makary MA, Daniel M. Medical error-the third leading cause of death in the US. *BMJ*. 2016;353:i2139. doi:10.1136/bmj.i2139.
23. Kawamoto K, Martin CJ, Williams K, et al. Value Driven Outcomes (VDO): a pragmatic, modular, and extensible software framework for understanding and improving health care costs and outcomes [published online ahead of print October 16, 2014]. *J Am Med Inform Assoc*. 2015;22(1):223-235. doi:10.1136/amiajnl-2013-002511.
24. Mehrota A, Dean K, Sinaiko A, Sood N. Americans support price shopping for health care, but few actually seek out price information. *Health Aff*. 2017;36(8):1392-1400. doi:10.1377/hlthaff.2016.1471.
25. American Organization for Nursing Leadership (AONL). *Nurse Manager Competencies*. Chicago, IL: AONE, AONL; 2015.
26. American Organization for Nursing Leadership (AONL). *Nurse Executive Competencies*. Chicago, IL: AONE, AONL; 2015.
27. American Organization for Nursing Leadership (AONL). *Nurse Executive Competencies: Post-Acute Care*. Chicago, IL: AONE, AONL; 2015.
28. American Organization for Nursing Leadership (AONL). *Nurse Executive Competencies: System CNE*. Chicago, IL: AONE, AONL; 2015.
29. NEJM Catalyst. What is Lean in healthcare? Massachusetts Medical Society. https://catalyst.nejm.org/doi/full/10.1056/CAT.18.0193. Published April 27, 2018. Retrieved November 4, 2020.

PREPARED STATEMENT OF SENATOR CORY A. BOOKER

Thank you, Chairman Sanders, for holding this important hearing. It has been 84 days since 1,700 nurses went on strike at Robert Wood Johnson (RWJ) University Hospital New Brunswick for improved staffing ratios, fair wages, and decent benefits. Eighty-four days that the 1,700 nurses haven't seen the patients they serve and have gone without a paycheck. And since September, the nurses haven't had healthcare.

This isn't a story unique to Robert Wood Johnson or New Jersey: just this year, there have been 18 healthcare strikes, and there were 40 healthcare strikes in 2022. More healthcare workers have gone on strike in the last 2 years than in the last three decades. And we are seeing them win—from fair staffing ratios to better pay rates, these nurses are fighting for their communities and making incredible, transformational change for their industry and our Country.

For too long, our economy hasn't worked for working people, and the nurses here today know this too well. Nurses haven't seen meaningful wage increases in decades—wages were largely stagnant for nurses between 1995 and 2015 despite increasing demand for healthcare over the same timeframe. Americans' cost of living has increased, but the incomes of America's workers just hasn't kept up.

While hospital systems continue to consolidate and post record profits, nurses have been squeezed into increasingly dangerous workplace conditions. A study from the University of Pennsylvania showed that in hospitals with high patient-to-nurse ratios, each additional patient per nurse was associated with a 7 percent increase in the likelihood of death and a 7 percent increase in the odds of failure to respond effectively to post-surgical complications. Each additional patient per nurse was associated with a 23 percent increase in the odds of nurse burnout.

Throughout the pandemic, we hailed nurses as heroes. We owe these heroes not just words, but the fair contracts and safe environments they deserve. Over the last few months, I have shared the same message with both hospital administration and RWJ's nurses represented by United Steelworkers (USW) Local 4–200: RWJBarnabas must come to a good-faith agreement with USW Local 4–200, one that provides nurses with safe standards, quality working conditions, affordable healthcare, and living wages that support the employees, the hospital community, and patients. These nurses are parents, they are daughters and sons, they are friends, and they are empathetic caregivers in their community who must be able to get back to work in an environment that is safe and where they feel valued. I support RWJ nurses, and nurses everywhere, in the fight for a safer workplace and better working conditions.

PREPARED STATEMENT OF MARK MANIGAN

Chairman Sanders, Ranking Member Cassidy and Members of the Committee, my name is Mark E. Manigan. I am the President and Chief Executive Officer for RWJBarnabas Health, the largest and most comprehensive academic health care system in the State of New Jersey. On behalf of our nearly 38,000 employees and 9,000 physicians, I appreciate this opportunity to provide written testimony to the Senate Committee on Health, Education, Labor, and Pensions.

Although I am unable to appear in person at today's field hearing, I have the utmost respect for this Committee and its staff and support your efforts to identify solutions that improve the delivery of care in this country and address the ongoing, nationwide nursing shortage that is challenging every hospital in every state. These are serious issues that require serious attention, and I believe the innovative work we do for our patients and the communities we serve at RWJBarnabas Health can contribute greatly to this discussion.

I want to assure the Members of this Committee that contrary to the narrative of the misinformed or those seeking to purposely mislead the public, RWJBarnabas Health is proud of its relationship and partnership with our brothers and sisters in organized labor. Nearly a quarter of our employees are in a union. RWJBarnabas Health currently has over $1.3 billion in construction projects underway with organized labor. For months, we bargained in good faith with the United Steel Workers 4–200 (USW 4—200), who represent our nurses in New Brunswick, and I am happy to report, that while slower than I had hoped, we continue to make real progress in negotiations. I can tell you, as an organization, we believe strongly in the collective bargaining process, and we look forward to continuing to make progress at the bargaining table—where negotiating belongs.

I am troubled by the inaccurate and misleading assertions put forth by the Chairman in recent public comments. Unlike a significant number of health care organizations in the Northeast and around the country, RWJUH has safe staffing guidelines in place that are derived from national, evidence-based practice by peer academic medical centers. These guidelines were agreed to by the USW 4–200 negotiating committee, representing RWJUH nurses, in multiple contract settlement offers from the hospital that they failed to ratify. Our patients receive safe and compassionate care across all of our services, as evidenced by multiple quality indicators and national quality rankings, which reflect our unwavering commitment to the communities we serve.

Our negotiating team at RWJUH has met with the union six (6) times since October 6, 2023, including this past Sunday, October 22, with the goal of reaching a fair and equitable resolution that provides the highest-quality patient care and creates a safe and supportive working environment for our nurses. I believe and humbly ask that you understand that is where my focus should be at this time, as well as working with our team to maintain the delivery of care for our patients.

RWJBarnabas Health Commitment to Patients and Staff

RWJBarnabas Health is one of the State of New Jersey's largest private employers and a not-for-profit health care organization covering eight counties and more than five million residents. While we take pride in the incredible array of health care services we provide, many of which are regionally and nationally recognized, what distinguishes RWJBarnabas Health, and what we are most proud of, is our deep commitment to the most vulnerable among us. RWJBarnabas Health plays a vital role as part of New Jersey's safety net. We are, by two times, the state's largest provider of medical care to those who can't afford to pay and to beneficiaries of the Medicaid program.

As I noted earlier in my testimony, RWJBarnabas Health is a proud, pro-labor organization in a historically pro-labor state. We have long-term and deep relationships with many labor unions that represent all levels of the health care professionals we employ. We have successfully negotiated previous labor contracts with 29 independent bargaining units across the system, including seven nursing unions. We respect and support our workers' rights to organize and to peacefully protest.

Like all health care organizations, we continue to work hard to address labor shortages across all professions. Every hospital in every state has been impacted by a nationwide nursing shortage that began long before but was only further exacerbated by the pandemic. We are competing statewide, regionally and nationally for a finite number of people amidst a surge of significantly acute patients who require our care. The challenges are daunting, but we persist.

The pandemic put our Nation's entire health care system and, in particular, hospitals like ours in the Northeast, to the test. We are eternally grateful for all that our nurses, physicians and other frontline staff did to save lives and treat our patients during one of the most difficult, tragic, and challenging public health emergencies of the past century. I am among the first to recognize the immense toll the pandemic took on our employees, especially our nurses, causing many to leave the profession. In response, RWJBarnabas Health has taken demonstrative steps to make operational improvements, lift wages and address staffing across our entire system. To be frank, we are a different hospital system today than we were just a short time ago, and any hospital that has failed to learn from the pandemic and implement needed changes is letting down both its patients and staff.

In an October 9, 2023 *op-ed published on nj.com and in the Star-Ledger*, Cathy Bennett, president and CEO of the New Jersey Hospital Association (NJHA), addressed the impact the nursing shortage is having on our state's hospitals. She rightly argues that the complex process of safe staffing requires a flexible and collaborative approach that allows nursing leaders to adjust to fluctuating volumes and varying patient acuity. I agree with NJHA that this can be best achieved through evidence-based approaches, including acuity-based staffing tools, nurse-led committees, and tracking, rather than legislative oversight or mandated staffing ratios. President Bennett is spot on when she says that hospitals across our state, and arguably the Nation, need greater legislative and budgetary support to expand critical pipelines and nursing education programs, strengthen workforce diversity, and enhance healthcare delivery.

Washington's focus on addressing the national nurse staffing shortage and health care reimbursement rates, which have plateaued and failed to keep up with rising costs, is certainly welcomed. Unfortunately, Congress has failed to pass legislation that would inject significantly more resources into strengthening nurse pipelines

and creating more educational opportunities to help address the staffing shortage. Although we have taken steps to significantly reduce our reliance on contract nurses across the RWJBarnabas Health system prior to the current strike at RWJUH, the shortage of nurses has made it impossible for us to entirely eliminate agency support. *An April 2023 report by the American Hospital Association* found that hospitals across the country are facing a $100 billion annual shortfall in reimbursement from Medicare and Medicaid with hospital expenses rising 17.5 percent between 2019–2022, while reimbursements increased only 7.5 percent during the same period. Among the factors placing increased financial constraints on hospitals, the AHA cited critical workforce shortages forcing hospitals to rely more on contract labor, as well as historic inflation driving up the costs of medical supplies and equipment. Furthermore, while the American Rescue Act provided much needed support to help us get through the pandemic, most of those available funds have lapsed at a time when hospitals, including those in our system, continue to face financial challenges.

RWJBarnabas Health Commitment to Community Benefit

RWJBarnabas Health is privileged to be part of the fabric of the great State of New Jersey—a state rich in economic opportunity, diversity and culture, all of which contribute to the betterment of the lives of its outstanding residents. The system includes 12 (12) acute care hospitals, three (3) acute care children's hospitals, Children's Specialized Hospital with a network of outpatient pediatric rehabilitation centers, a freestanding 100-bed behavioral health center, two (2) trauma centers, a satellite emergency department, ambulatory care centers, geriatric centers, the state's largest behavioral health network, comprehensive home care and hospice programs, fitness and wellness centers, retail pharmacy services, affiliated medical groups, multi-site imaging centers and two (2) accountable care organizations. Our footprint covers eight counties with over five million residents.

For more than 140 years, RWJBarnabas Health has been an anchor institution in New Jersey. As the state's largest and most comprehensive academic health care system, our clinical programs have made us a destination for care, especially for patients facing complex conditions. We are honored to be a part of the generational legacy of so many New Jersey residents. Our team works tirelessly to ensure all are treated with compassion, empathy, and respect, and provided with the highest-quality and most equitable care.

RWJBarnabas Health is much more than a critical health care provider. Our commitment does not begin with a visit to a doctor or a hospital. It starts with creating educational and economic opportunity, safe and affordable living conditions, and access to healthy food. RWJBarnabas Health is a robust economic engine contributing more than $5.5 billion to the New Jersey economy per year, and we harness that horsepower for the benefit of our diverse communities, in particular, the disadvantaged. Since 2019, our hire-local-buy-local "anchor mission" has led to more than $214 million of spending with local and diverse vendors. We have intentionally recruited and hired 3,000 teammates from ALICE (asset limited, income constrained) neighborhoods. We funded the construction of a public elementary school and have developed career path programs for students with multiple educational institutions. We have "fall—proofed" senior homes and subsidized affordable housing for the working poor and the homeless as well as transitional housing for families suffering from illness-related financial hardship.

To address food insecurity and health, RWJBarnabas Health has built a greenhouse in Newark, distributed thousands of meals to the hungry, funded local community gardens, hosted farmers markets and established food hubs with local farmers in our cities, embedded nutritional programs in schools and community centers, and our Wellness on Wheels van traverses the state offering cooking classes on healthy eating.

We are also investing in the future health and well-being of all New Jerseyans. RWJBarnabas Health has dedicated more than $1 billion, through our transformative partnership with Rutgers University, to increase access to groundbreaking clinical trials and innovative medical care. The partnership also trains and develops the health care providers who will take care of the next generation of New Jerseyans. Further, to make sure cutting-edge clinicians have the most effective settings in which to practice, from 2020 through 2025, RWJBarnabas Health will have invested more than $4.7 billion in new equipment, technology and facilities, with a sizable portion of that in underserved communities, creating thousands of jobs along the way.

We have implemented programs to reduce disparities in maternal health outcomes by focusing on prenatal care and education, enhanced clinical services for the

unique needs of the LGBTQ community, partnered with the state on the "Arrive Together" program pairing mental health professionals with police on 911 response calls, implemented post-incarceration programs focused on providing health and social support services, and built fields and parks throughout the state, including the incredible Field of Dreams facility in Toms River, an inclusive playground and park for those with special needs.

In drawing erroneous conclusions about RWJBarnabas Health's commitment to the community in a recent Report entitled "Executive Charity: Major Non-Profit Hospitals Take Advantage of Tax Breaks and Prioritize CEO Pay Over Helping Patients Afford Medical Care," the Chairman respectfully relied on inaccurate information. The American Hospital Association called the Report's findings "mistaken," "just plain wrong" and that its "tunnel-visioned 'research' neglects to consider that under the law community benefit is defined by much more than charity care and includes patient financial aid, health education programs and housing assistance, just to name a few."

For the record, RWJBarnabas Health provided approximately $651 million in community benefit as defined by the Internal Revenue Service (IRS) and reported on Forms 990, Schedule H, Part I for calendar year 2021, in furtherance of its Federal tax-exempt, not-for-profit status. This does not include $220 million in uncollectible patient accounts in 2021, which equate to bad debt, nor a $184 million Medicare shortfall for the same year. When you aggregate all the sources of net community benefit, our unfunded costs represent 11.29 percent of our total expenses for 2021 of $5.769 billion. In 2021, RWJBarnabas Health also provided $142 million in charity care, representing nearly 2.5 percent of all expenses that year.

We thank the residents of New Jersey for their continued support of RWJBarnabas Health and for trusting us with their health care needs. As we step into the future, we look forward to witnessing all we will accomplish together in our continued pursuit of a healthier New Jersey.

Closing

I want to thank the Committee for its time and thoughtful consideration. Although I respectfully question the motives of the Chairman in choosing the timing and location of today's field hearing, RWJBarnabas Health welcomes the opportunity to share our expertise and experience and participate in substantive policy discourse to improve our Nation's health care. RWJBarnabas Health is committed to its stated mission to build healthy communities through our care delivery at our facilities and through our significant work in the communities we serve. We are committed to investing in cutting-edge technologies, developing innovative procedures and treatments, and expanding our services to provide the best quality care for our patients. And we are committed to being a best-in-class employer, supporting our staff, offering competitive wages and benefits, and providing opportunities for workforce development.

[SUMMARY STATEMENT OF MARK MANIGAN]

I am the President and Chief Executive Officer for RWJBarnabas Health, the largest and most comprehensive academic health care system in the State of New Jersey. Although I am unable to appear in person at today's field hearing, I have the utmost respect for this Committee and its staff and support your efforts to identify solutions that improve the delivery of care in this country and address the ongoing, nationwide nursing shortage that is challenging every hospital in every state.

I want to assure the Members of this Committee that contrary to the narrative of the misinformed or those seeking to purposely mislead the public, RWJBarnabas Health is proud of its relationship and partnership with our brothers and sisters in organized labor. Nearly a quarter of our employees are in a union. RWJBarnabas Health currently has over $1.3 billion in construction projects underway with organized labor. For months, we bargained in good faith with the United Steel Workers 4–200 (USW 4–200), who represent our nurses in New Brunswick, and I am happy to report, that while slower than I had hoped, we continue to make real progress in negotiations. As an organization, we believe strongly in the collective bargaining process, and we look forward to continuing to make progress at the bargaining table—where negotiating belongs.

I am troubled by the inaccurate and misleading assertions put forth by the Chairman in recent public comments. Unlike a significant number of health care organizations in the Northeast and around the country, RWJUH has safe staffing guide-

lines in place that are derived from national, evidence-based practice by peer academic medical centers. These guidelines were agreed to by the USW 4–200 negotiating committee in multiple contract settlement offers from the hospital that they failed to ratify. Our patients receive safe and compassionate care across all of our services, as evidenced by multiple quality indicators and national quality rankings, which reflect our unwavering commitment to the communities we serve.

Our negotiating team at RWJUH has met with the union six (6) times since October 6, 2023, including this past Sunday, October 22, with the goal of reaching a fair and equitable resolution that provides the highest-quality patient care and creates a safe and supportive working environment for our nurses. I believe and humbly ask that you understand that is where my focus should be at this time, as well as working with our team to maintain the delivery of care for our patients.

The pandemic put our Nation's entire health care system and, in particular, hospitals like ours in the Northeast, to the test. We are eternally grateful for all that our nurses, physicians and other frontline staff did to save lives and treat our patients during one of the most difficult, tragic, and challenging public health emergencies of the past century. I am among the first to recognize the immense toll the pandemic took on our employees, especially our nurses, causing many to leave the profession. In response, RWJBarnabas Health has taken demonstrative steps to make operational improvements, lift wages and address staffing across our entire system. To be frank, we are a different hospital system today than we were just a short time ago, and any hospital that has failed to learn from the pandemic and implement needed changes is letting down both its patients and staff.

In an October 9, 2023 *op-ed published on nj.com and in the Star-Ledger*, Cathy Bennett, president and CEO of the New Jersey Hospital Association, addressed the impact of the nursing shortage and rightly argues that the complex process of safe staffing requires a flexible and collaborative approach that allows nursing leaders to adjust to fluctuating volumes and varying patient acuity. I agree with NJHA that this can be best achieved through evidence-based approaches, including acuity-based staffing tools, nurse-led committees, and tracking, rather than legislative oversight or mandated staffing ratios. RWJBarnabas Health welcomes the opportunity to share our expertise and experience and participate in substantive policy discourse to improve our Nation's health care.

PREPARED STATEMENT OF ALAN LEE

Chairman Sanders, Ranking Member Cassidy and Members of the Committee, my name is Alan Lee. I am the President of Robert Wood Johnson University Hospital (RWJUH) in New Brunswick, NJ I welcome this opportunity to provide testimony to the Senate Committee on Health, Education, Labor, and Pensions and thank you for your careful consideration of the information I am sharing herein.

I respectfully submit this written testimony in lieu of appearing before the Committee. The cadence of our negotiations has increased and we believe a contract is attainable in the near future. We cannot risk anything taken out of context in this hearing that might hinder our ability to reach an agreement to bring our nurses back inside so that they can resume their noble profession and support themselves and their families. Ending this strike is paramount.

As the Committee is fully aware, the nurses at RWJUH, represented by the United Steel Workers Local 4—200 (USW 4–200), have been on strike since August 4, 2023. As the leader of this organization, I state to you emphatically and with a clear conscience that we did everything possible to avert this labor action. Furthermore, we have done everything possible to bring our nurses back inside since that day. We have negotiated in good faith and transparently, and have offered more in settlement proposals than any other organization of similar scope has in our market. We have respected the nurses' right to protest during this labor action despite relentless and abhorrent behavior impacting our sickest patients through noise and intimidation. Sadly, they went too far and assaulted a replacement nurse and began to intentionally block physicians reporting to the hospital to perform lifesaving interventions. Despite this behavior, which the union ultimately acknowledged was egregious and signed a consent order to cease and desist, we have kept our focus on settling our contract and delivering excellent patient care.

Upon completion of this testimony, I respectfully submit that the esteemed Committee will have a clearer picture of two important points. First, that the hospital is committed to providing our nurses with fair and equitable compensation and ensuring safe staffing levels that meet criteria based on patients' acuity and the volume of the patients we treat. Second, RWJUH has fulfilled our obligation to care for our communities at all levels—which is no small feat given the complexity of our

academic medical center—during this labor action. This is a sacred obligation, one for which we have paid an unfortunately high price to achieve during the strike.

Ensuring delivery of the highest quality, always-safe patient care and working toward a resolution that brings our dedicated nursing staff back to the bedside remain my top priorities and the focus of my attention. These cannot be characterized as mutually exclusive. They are equally important. Closing the hospital was simply not an option.

Background on Robert Wood Johnson University Hospital

RWJBarnabas Health is the largest, most comprehensive academic health care system in New Jersey, with a service area covering eight counties with five million people. It is a not-for-profit, safety-net organization and the largest charity care provider in New Jersey. RWJUH, an RWJBarnabas Health facility, is New Jersey's largest academic medical center through its deep partnership with Rutgers University. I am proud of our contributions to health care in New Jersey. RWJUH is ranked in the top five of New Jersey hospitals by both U.S. News & World Report and Newsweek.

RWJUH has 640 licensed beds, is home to a nationally ranked children's hospital and, in partnership with Rutgers Cancer Institute of New Jersey, is the flagship location of New Jersey's only National Cancer Institute (NCI)-designated comprehensive cancer center. RWJUH is one of only seven hospitals in the world to achieve the prestigious Magnet Designation from American Nurses Credentialing Center six consecutive times. Two of the other hospitals to achieve this status are also in the State of New Jersey. RWJUH is one of three state-designated Level I Trauma Centers; an Advanced Comprehensive Stroke Program, as designated by The Joint Commission; a regional transfer center for cardiovascular care, stroke, neuroscience, trauma, pediatrics, and oncology; and performs kidney, pancreas and heart transplantations. RWJUH treated more than 90,000 patients in its adult and pediatric emergency departments last year.

Due to its role as a quaternary care facility, RWJUH employs health care professionals at the highest echelons of their specializations. Most clinical care providers and ancillary clinical team members have the highest levels of certifications and extensive experience, as is appropriate for addressing the sickest patients and the most complex conditions.

Like every hospital in New Jersey and the country, we are working hard to overcome a nationwide nursing shortage. Despite those challenges and the intense competition for employment, RWJUH continues to make positive strides in nurse recruitment, hiring and retention. We have added over 200 registered nurse positions since May 2022 to bolster our always-safe nurse staffing guidelines and have achieved a vacancy rate that is nearly half the national average. To retain and attract nurses with top certifications, commitment to nursing education and essential experience, RWJUH pays the highest wages in the state and is committed to protecting that status.

New Jersey is a pro-labor state and RWJBarnabas Health and RWJUH have and always will be union-friendly organizations. I respect our employees' right to organize and peaceably protest. Throughout the current labor action, RWJUH has continued to negotiate transparently and in good faith toward reaching a fair and equitable agreement on a contract with our valued nurses. It is not due to the hospital's offers or efforts that the nurses continue to strike.

Good Faith and Transparent Negotiations with United Steel Workers 4-200

See attached addendums:

I. Summary of negotiation sessions with USW–4–200

II. Infographic of the RWJUH always-safe nurse staffing guidelines; Chart of the RWJUH nurse vacancy rate comparison to national nurse vacancy rate

Negotiations between RWJUH and USW 4–200, the union representing our esteemed nurses, began in April 2023, far ahead of the contract expiration date of June 30, 2023. We have held several face-to-face negotiation sessions and met multiple times through a Federal mediator in hopes of reaching a resolution. Since October 6, 2023, we have met six (6) times with varying degrees of progress. Our most recent session was Sunday, October 22. All contract settlement offers by RWJUH have extended wage increases that ensure RWJUH nurses are the highest paid in the State of New Jersey compared to their peers and committed to staffing guide-

lines that meet or exceed current proposed legislation in New Jersey and those that have passed in states like California with mandated nurse ratios.

Let me be clear: RWJUH did not want this strike. In fact, we did everything we could to avert it. We twice accepted USW 4–200's demands and offered to go to binding arbitration or submit to a board of inquiry, but the union refused. We requested numerous times for union leadership to continue negotiating rather than strike. We informed them in July that striking workers stood to lose not only pay but also employee benefits, which require a minimum number of hours worked each month to be eligible. And we repeatedly pleaded with the union to consider the impact of a strike—especially a prolonged strike—for nurses and their families. Make no mistake, the decision to strike was the union's and the union's alone.

According to publicly available data, RWJUH nurses are the most highly paid in New Jersey and our nurse vacancy rate is nearly half the national average. As an academic medical center providing the highest acuity care, our existing staffing guidelines are established from evidence-based practice with peers nationally to address the sickest patients and volumes that are among the highest in the state. As essential members of the care team, RWJUH is committed to providing nurses with a safe and supportive work environment and a healthy lifestyle.

The negotiation team put forth by USW 4–200 to represent our nurses has often bargained outside of industry standard protocol and have presented as sometimes disorganized, unprofessional and chaotic in their approach. For example, on July 17, they signed a memorandum of agreement (MOA) with the hospital that included the union's own staffing proposal and a compensation settlement that would have ensured RWJUH nurses are paid on average 14 percent higher than any other nurses in New Jersey. That agreement implied a commitment by the union leadership to endorse and recommend the settlement to their membership for ratification. Instead, they extended little support for the MOA and delivered an overwhelming no-vote by the members that is extraordinarily unusual once an agreement is signed. Inexplicably, from that point forward, the union has presented no reasonable, articulate or administrable path to a settlement. This behavior, and lack of educating their members on settlement offers, is atypical of bargaining negotiations and has been non-productive.

This lack of professionalism in negotiating is tragically detrimental to our nurses who have lost wages and benefits during this strike. At one point, the union publicly claimed it was unaware that members would lose eligibility for health benefits even though an update posted by the union to USW 4–200's website in July specifically informed its members of the pending deadline.

The High Cost of Delivering Care Throughout This Prolonged Labor Action

The union's decision to walk off the job and prolong this strike has also had significant economic consequences for the hospital that we will have to carefully manage for years to come. To date, RWJUH has paid more than $103 million for strike-related expenses, including replacement nurses with the highest levels of certification and experience in acute care and specialized clinical areas. Caring for our patients is our No. 1 priority. We make no apologies for doing everything necessary to ensure the hospital remains fully operational and our patients continue to receive the highest quality, always-safe care. What would we have told our patient from Princeton, who waited on a heart transplantation list for more than 2 years, if we had not been able to accept his donor heart and transplant it into him on August 4—the first day of the strike? Closing the hospital was never an option and will never be an option. We strongly challenge the assertion that engaging highly skilled, compassionate and reputable agency nurses to help us at this time is anything but honorable and necessary. We owe these nurses a debt of gratitude.

That said, the compounded tragedy of this situation is that these funds absolutely could have been better utilized to further invest in patient care, staff wages, and improvements throughout the hospital. We implored the union to continue to bargain with us while our nurses stayed at the bedside, earned wages and were covered on our health and wellness programs. They elected to strike.

Closing

RWJUH stands firm in its commitment to fair and respectful wages, safe staffing standards based on patient acuity and volume, and accountability toward meeting staffing guidelines for our nurses. Accountability is not equivalent to punitive financial penalties that might actually undermine our organization's ability to deliver care to our patients and meet our community benefit mission. We will not agree to

fines that have no administrative rigor and no stake by the union. This blank check request by USW 4–200 undermines their credibility as champions of patient safety and denigrates the noble nursing profession they represent.

I want to thank the Committee for affording me this opportunity to provide testimony. I hope that it aids you in important national dialog regarding the escalating costs of health care, the disparity in reimbursement to providers who front the cost of this care and the burden it places on our essential healthcare workers who want to help vulnerable people and also sustain their families. We look to our leaders to help us to identify and address the root causes of attracting fresh talent into health care, preventing burnout for those already in our noble industry and enabling an equitable and healthier public across the United States.

I am proud to share the tremendous work we do at Robert Wood Johnson University Hospital and the comprehensive care we provide. RWJUH is steadfast in its commitment to always-safe, highest quality patient care. I have the utmost respect for our dedicated nursing colleagues. Their invaluable contributions to our patients, our community and our hospital are greatly appreciated. It is my sincere hope that we can reach a fair and equitable resolution with USW 4–200 so we can welcome our nurses back as soon as possible.

[SUMMARY STATEMENT OF ALAN LEE]

My name is Alan Lee. I am the President of Robert Wood Johnson University Hospital (RWJUH) in New Brunswick, NJ, I respectfully submit this written testimony in lieu of appearing before the Committee. The cadence of our negotiations has increased, and we believe a contract is attainable in the near future. We cannot risk anything taken out of context in this hearing that might hinder our ability to reach an agreement to bring our nurses back inside so that they can resume their noble profession and support themselves and their families. Ending this strike is paramount.

As the leader of this organization, I state to you emphatically that we did everything possible to avert this labor action. Every day since August 4, we have done everything possible to bring our nurses back inside. This includes negotiating in good faith and transparently and offering more in settlement proposals than any other organization of similar scope has in our market. We have respected the nurses' right to protest during this labor action despite relentless and abhorrent behavior impacting our sickest patients through noise and intimidation. Sadly, they went too far and assaulted a replacement nurse and began to intentionally block physicians reporting to the hospital to perform lifesaving interventions.

There are two important points that I want to convey through this testimony: first, that the hospital is committed to providing our nurses with fair and equitable compensation and ensuring safe staffing levels that meet criteria based on patients' acuity and the volume of the patients we treat. Second, RWJUH has fulfilled our obligation to care for our communities at all levels—which is no small feat given the complexity of our academic medical center—during this labor action. Ensuring delivery of the highest quality, always-safe patient care and working toward a resolution that brings our dedicated nursing staff back to the bedside remain my top priorities and the focus of my attention. These cannot be characterized as mutually exclusive. They are equally important. Closing the hospital was simply not an option.

According to publicly available data, RWJUH nurses are the most highly paid in New Jersey and our nurse vacancy rate is nearly half the national average. As an academic medical center providing the highest acuity care, our existing staffing guidelines are established from evidence-based practice with peers nationally to address the sickest patients and volumes that are among the highest in the state. As essential members of the care team, RWJUH is committed to providing nurses with a safe and supportive work environment and a healthy lifestyle. However, the negotiation team put forth by the union representing our nurses has sometimes exhibited a disorganized, unprofessional and chaotic approach. For example, on July 17, they signed a memorandum of agreement (MOA) with the hospital that included the union's own staffing proposal and a compensation settlement that would have ensured RWJUH nurses are paid on average 14 percent higher than any other nurses in New Jersey. That agreement implied a commitment by the union leadership to endorse and recommend the settlement to their membership for ratification. Instead, they extended little support for the MOA and delivered an overwhelming no-vote by the members that is extraordinarily unusual once an agreement is signed. Inexplicably, from that point forward, the union has presented no reasonable, ar-

ticulate or administrable path to a settlement. This behavior, and lack of educating their members on settlement offers, is atypical of bargaining negotiations.

New Jersey is a pro-labor state and RWJUH will always be a union-friendly organization. I respect our employees' right to organize and peaceably protest and am committed to continue to negotiate in good faith toward reaching a fair and equitable agreement on a contract.

RWJBarnabas HEALTH | Robert Wood Johnson University Hospital

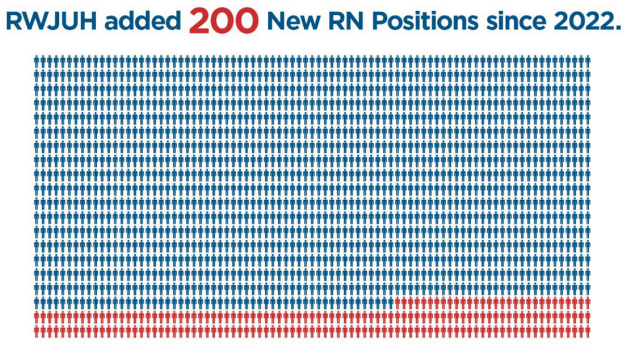
RWJUH United Steel Workers Negotiation Timeline

- **April 10** – Negotiations began.
- **July 17** – After several months of good faith negotiations, **hospital and union leaders agree to new contract terms. Memorandum of Agreement (MOA) addressed staffing concerns, increased nurse wages and benefits**, and maintained RWJUH nurses as the highest paid in the State of New Jersey, based on available public data.
- **July 20** – **Union members reject MOA that was agreed to and recommended by union leaders**.
- **July 23** – RWJUH and union leaders meet again to bargain in good faith. RWJUH offers to enter into binding arbitration to avert a strike. Union refuses.
- **July 24** – RWJUH receives official notice from Union of its intent to strike at 7 a.m. on Friday, August 4.
- **Weeks of July 24**, **July 31** – RWJUH management holds series of open forum town hall meetings and hears directly from hundreds of nurses – becomes apparent that there is confusion among nurses over the terms of the MOA that they rejected.
- **July 27** – RWJUH and union leaders resume discussions.
  - Union requests clarifying language to staffing and other changes to MOA.
  - RWJUH agrees, but in return asks union to rescind strike notification pending ratification to allow time for union leaders to inform and educate members of revised language in agreement. Union refuses.
  - RWJUH again offers to enter into binding arbitration or submit to a board of inquiry in order to avert a strike. Union refuses both.
- **July 28** – RWJUH completes $17+ million initial payment to agency to provide replacement nurses in the event of a strike.
- **July 31** – Training begins for replacement nurses to ensure seamless transition and continuity of patient care in the event of a strike.
- **August 1** – Both sides resume negotiations. End without a resolution.

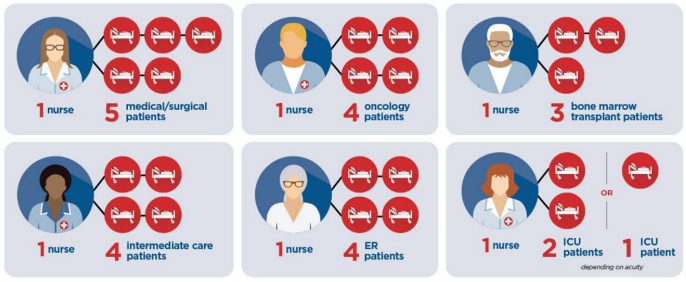
- **August 2** – **RWJUH extends updated offer that further addressed union staffing concerns** and provides a $20 an hour bonus for nurses should the hospital fall below agreed upon standards, and further increased on-call pay. **Union does not respond to counteroffer**.
- **August 3** – RWJUH fully implements strike contingencies and reassures patients and community that the hospital will remain open and fully operational without interruption to continue to deliver the highest quality care in the safest environment.
- **August 4** – 7 am, USW 4-200 nurses strike. Union never responds to latest RWJUH offer.
- **August 4** – 7:40am, all clinical services transition to replacement nursing staff without incident or disruption of care. RWJUH fully operational with normal scheduling.
- **August 7** – Both sides agree to meet with the Mediator on August 9.
- **August 9** – Both sides met with the federal mediator; USW Local 4-200 rejects latest hospital proposal and submits counteroffer; mediation concludes; counteroffer is under review by the hospital.
- **August 16** – Both sides met with the federal mediator without success.
- **August 31** – Employer-based health and wellness benefits for RWJUH nurses in the USW 4-200 expire; union nurses transition to federal COBRA program if elected.
- **September 14** – Both sides met with the federal mediators; the hospital presented an offer to settle the contract or to enter into binding arbitration to settle the contract. The hospital set a deadline for response of September 19 at Noon ET. The union called a vote of the members, adding a third option of continuing the strike.
- **September 19** - The union notified the hospital that its members had voted to continue the strike. The mediators have not set any further meetings with the two parties.
- **September 20** – The union agreed to a Consent Order prohibiting certain activities outside of hospital facilities that could inhibit access to care and to prevent harm to RWJUH patients, visitors and staff during their labor action.
- **September 28 –** Federal Mediator informed RWJUH and the union that the next mediation session is on October 6.

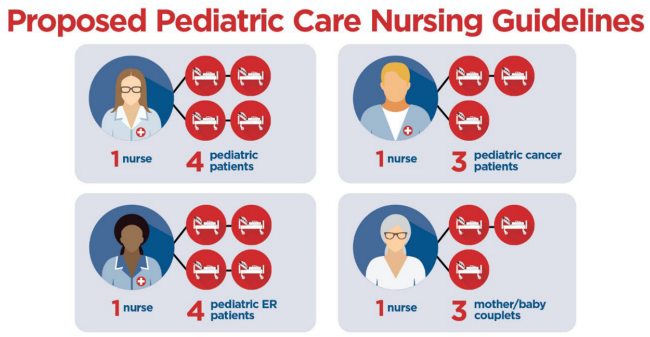
- **October 6** – The hospital and union met with the federal mediator. No settlement was reached. The mediator has set the next session for Tuesday, October 10.
- **October 10, 13, 15** – The hospital participated in scheduled negotiations with the union. The next meeting is on October 19.
- **October 19** – The hospital and the union met with the federal mediator. No settlement was reached. The next session has not been scheduled.

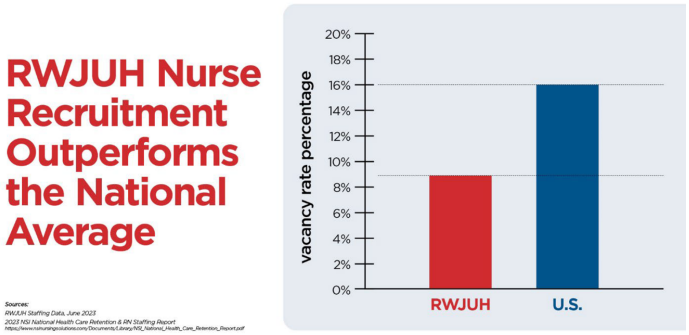
Setting the Record Straight



Proposed Adult Care Nursing Guidelines




Proposed Pediatric Care Nursing Guidelines
1 nurse
4 pediatric patients
1 nurse
3 pediatric cancer patients
1 nurse
4 pediatric ER patients
1 nurse
3 mother/baby couplets


RWJUH Nurse Recruitment Outperforms the National Average
Sources:
RWJUH Staffing Data, June 2023
2022 NSI National Health Care Retention & RN Staffing Report
https://www.nsinursingsolutions.com/Documents/Library/NSI_National_Health_Care_Retention_Report.pdf
vacancy rate percentage
20%
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
RWJUH
U.S.

National Nurses United
The National Voice for Direct-Care RNs

WASHINGTON DC
8455 Colesville Road
Suite 1100
Silver Spring MD 20910
phone: 800-287-5021
fax: 240-235-2019

OAKLAND
155 Grand Avenue
Suite 100
Oakland CA 94612
phone: 800-504-7859
fax: 510-663-1625

March 23, 2023

Dear Member of Congress,

On behalf of the nearly 225,000 nurses represented by National Nurses United, we write today to ask you to become an original cosponsor of the Nurse Staffing Standards for Hospital Patient Safety and Quality Care Act. The legislation will be introduced on March 30, 2023, by Senator Sherrod Brown and Congresswoman Jan Schakowsky. This critical bill would establish federally mandated nurse-to-patient ratios in acute care hospitals across the country, drastically improving patient care and working conditions for registered nurses.

The nursing workforce is in crisis. Years of industry neglect at the hands of our hospital employers, exacerbated by unsafe conditions during the ongoing pandemic, have left registered nurses feeling abandoned, distressed, and physically exhausted. As a result of these horrific working conditions, many nurses have chosen to leave bedside nursing in recent years, exacerbating the staffing crisis we find ourselves in now.

At the heart of the horrific working conditions we experience is the hospital industry's intentional policies of short-staffing, a cost-cutting measure that has allowed hospital employers to save money on labor costs at the expense of quality patient care and nurse health and safety. Hospital employers deliberately refuse to staff our nation's hospitals with enough nurses to provide quality patient care. As a result, nurses are consistently required to care for more patients than is safe, compromising patient care and negatively impacting patient outcomes.

Studies show that when RNs are forced to care for too many patients at one time, patients are at higher risk of preventable medical errors, avoidable complications, falls and injuries,[1] pressure ulcers,[2] increased length of hospital stay, higher numbers of hospital readmissions, and death.[3] Numerous studies have documented disparities in care in hospitals that serve communities of color.[4] Studies have also found that registered nurse staffing levels in hospitals that serve communities of color are often lower, contributing to these disparities in care.[5] Setting a single

[1] Kim J, Lee E, Jung Y, Kwon H, Lee S. Patient-level and organizational-level factors influencing in-hospital falls. *J Adv Nurs*. 2022 Nov;78(11):3641-3651. doi: 10.1111/jan.15254. Epub 2022 Apr 20. PMID: 35441709; PMCID: PMC9790490.
[2] Kim J, Lee JY, Lee E. Risk factors for newly acquired pressure ulcer and the impact of nurse staffing on pressure ulcer incidence. *J Nurs Manag*. 2022 Jul;30(5):O1-O9. doi: 10.1111/jonm.12928. Epub 2020 Feb 25. PMID: 31811735; PMCID: PMC9545092.
[3] Increased LOS, Mortality and Readmission: Dierkes, A. M., Aiken, L. H., Sloane, D. M., Cimiotti, J. P., Riman, K. A., & McHugh, M. D. (2022). Hospital nurse staffing and sepsis protocol compliance and outcomes among patients with sepsis in the USA: a multistate cross-sectional analysis. *BMJ Open*, 12(3), e056802. https://doi.org/10.1136/bmjopen-2021-056802.
[4] Carthon, J. M. B., Brom, H., McHugh, M., Daus, M., French, R., Sloane, D. M., Berg, R., Merchant, R., & Aiken, L. H. (2022). Racial Disparities in Stroke Readmissions Reduced in Hospitals With Better Nurse Staffing. *Nurs Res*, 71(1), 33-42. https://doi.org/10.1097/nnr.0000000000000552.
[5] Lake, E. T., Staiger, D., Edwards, E. M., Smith, J. G., & Rogowski, J. A. (2017). Nursing Care Disparities in Neonatal Intensive Care Units. *Health Serv Res*. https://doi.org/10.1111/1475-6773.12762.

standard of nursing care across hospitals will improve outcomes for patients of color including reduced readmission rates, increased satisfaction, and better obstetrical outcomes.[6]

The failure by hospital employers to staff appropriately and provide the needed resources make it impossible for registered nurses to meet their ethical and professional obligations to provide safe, effective, and therapeutic nursing care.[7] These conditions have led nurses to experience severe moral distress and injury (often incorrectly labeled "burnout"); mental health issues such as stress, anxiety, depression, and post-traumatic stress disorder; and physical exhaustion. As a result, many nurses are leaving the hospital bedside.[8]

This legislation would protect patients and improve healthcare outcomes by setting specific limits on the numbers of patients an RN may care for at one time in U.S. hospitals. The bill is modeled on the RN safe staffing ratios law in California that has been shown to save patient lives, improve quality of care, reduce nurse job dissatisfaction, and retain and bring back experienced nurses to the bedside.

California is the only state in the country that has an RN-to-patient ratios statute, and studies confirm the significant impact such mandatory, minimum staffing ratios have had on improved patient outcomes.[9] Research estimates that if the ratios mandate were implemented nationally thousands of lives would be saved each year.[10] The California ratios mandate has proven to reduce costs for hospitals by improving nurse safety and job satisfaction,[11] reducing spending on temporary RNs,[12] overtime costs,[13] and staff turnover.[14]

---

[6] Brooks-Carthon, J. M., Kutney-Lee, A., Sloane, D. M., Cimiotti, J. P., & Aiken, L. H. (2011). Quality of Care and Patient Satisfaction in Hospitals With High Concentrations of Black Patient. *Journal of Nursing Scholarship*, 43(3), 301-310. https://doi.org/10.1111/J.1547-5069.2011.01403.X.

[7] National Nurses United. 2020. "Deadly Shame: Redressing the Devaluation of Registered Nurse Labor Through Pandemic Equity." National Nurses United. https://www.nationalnursesunited.org/sites/default/files/nnu/graphics/documents/1220_Covid19_DeadlyShame_PandemicEquity_WhitePaper_FINAL.pdf.

[8] Even health care management consulting companies like McKinsey and staffing agencies like ShiftMed have released surveys showing that between 29 percent and 66 percent of nurses report they are inclined to leave the profession.
Berlin G et al. February 17,2022. "Surveyed nurses consider leaving direct patient care at elevated rates." *McKinsey & Company*. https://www.mckinsey.com/industries/healthcare/our-insights/surveyed-nurses-consider-leaving-direct-patient-care-atelevated-rates.
ShiftMed. September 22, 2022. "Staffing Shortages Push Nurses to the Brink, With Nearly Two-Thirds Considering a Departure from the Profession in Next Two Years." Available at: https://www.shiftmed.com/press-releases/shiftmeds-annualstate-of-nursing-survey-2022/.

[9] Lasater, K. B., Aiken, L. H., Sloane, D. M., French, R., Martin, B., Reneau, K., Alexander, M., & McHugh, M. D. (2020). Chronic hospital nurse understaffing meets COVID-19: an observational study. *BMJ quality & safety*, bmjqs-2020-011512. https://doi.org/10.1136/bmjqs-2020-011512.

[10] Aiken, L. H., Sloane, D. M., Cimiotti, J. P., Clarke, S. P., Flynn, L., Seago, J. A., Spetz, J., & Smith, H. L. (2010). Implications of the California nurse staffing mandate for other states. *Health Serv Res*, 45(4), 904-921. https://doi.org/10.1111/j.1475-6773.2010.01114.x.

[11] Spetz J. 2008. "Nurse Satisfaction and the Implementation of Minimum Nurse Staffing Regulations." *Policy Polit Nurs Pract*. 9(1):15-21. https://pubmed.ncbi.nlm.nih.gov/18390479/.

[12] Schmit, J. "Nursing shortage drums up demand for happy nomads." *USA Today*. June 9, 2005. (Quoting Tenet Health System Chief Nursing Officer. Travel nurses cost hospitals at least 20 percent more than a nurse employee even when benefits are factored in. Full-time employees are paid at least 1.5 times their regular salary for overtime hours worked.)

[13] Ibid.

[14] Bland-Jones, Cheryl. "Revisiting Nurse Turnover Costs, Adjusting For Inflation." *Journal of Nursing Administration*. 2008; 38(1): 11-18, 12. (Finding that the total RN turnover costs for fiscal year 2017 were between $7,875,000 and $8,449,000, and estimating an RN annual turnover rate at 18.5 percent.)

The Nurse Staffing Standards for Hospital Patient Safety and Quality Care Act would:

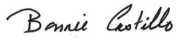
- Require hospitals to meet the mandated minimum RN staffing ratios, and to provide for additional staffing based on individual patient acuity and needs. The ratios in the bill are:
  - 1 nurse : 1 patient in trauma emergency units
  - 1 nurse : 1 patient in operating room units
  - 1 nurse : 2 patients in critical care units
  - 1 nurse : 3 patients in emergency room units, pediatrics units, stepdown units, telemetry units, antepartum units, and combined labor, delivery, and postpartum units.
  - 1 nurse : 4 patients in medical-surgical units, intermediate care nursery units, acute care psychiatric units, and other specialty care units
  - 1 nurse : 5 patients in rehabilitation units and skilled nursing units
  - 1 nurse : 6 patients in postpartum units and well-baby nursery units.
- Require hospitals to post notices on minimum ratios and maintain records on staffing.
- Provide strong whistleblower protections for nurses who speak out against assignments that are unsafe for the patient or nurse.
- Require that all nursing personnel have adequate training and demonstrated skill competence to perform their assigned patient care tasks, restrict the inclusion of nurse administrators and supervisors in the ratios calculations, and require that additional staffing above the minimum ratios is based on individual nursing plans and acuity level.
- Require that in acuity adjustable units, the highest patient acuity level in the unit will determine the applied ratio.
- Prohibit the substitution of direct patient care and RN professional judgment with video monitors or other technology
- Allow the Secretary of HHS to promulgate regulations requiring additional staffing of RNs and other patient care staff.
- Require that staffing plans are a subject of collective bargaining.
- Allow a longer implementation timeline for rural acute care hospitals to ensure compliance.

This legislation is of high priority for registered nurses across the country, and we hope you will join us in supporting it. If you have any questions, please do not hesitate to contact our Legislative Advocate, Julia Santos at jsantos@nationalnursesunited.org. To co-sponsor the bill, please contact Suzanne Luther in Senator Brown's office (Suzanne_Luther@brown.senate.gov), or Gidget Benitez in Congresswoman Schakowsky's office (Gidget.Benitez@mail.house.gov) before March 30th, 2023.

Thank you for your attention to this important issue.

Sincerely,

Aiken. 2010. supra, note 5 at 913. (Finding that California RNs, after the implementation of the mandated nurse-to-patient ratios, experienced burnout at significantly less rates than those in New Jersey and Pennsylvania. 20 percent California RNs reported being dissatisfied with their job, compared to 26 percent in New Jersey, and 29 percent in Pennsylvania. Both burnout and job dissatisfaction are precursors of voluntary turnover.)

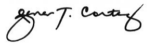


Bonnie Castillo, RN
Executive Director, National Nurses United

Nancy Hagans, RN
President, National Nurses United

Deborah Burger, RN
President, National Nurses United

Jean Ross, RN
President, National Nurses United



Zenei Cortez, RN
President, National Nurses United

National Nurses United

Proposed Congressional Actions to End the Industry-Created Nurse Staffing Crisis

National Nurses United (NNU) is the largest union and professional association of registered nurses (RNs) in the United States, representing nearly 225,000 nurses across the country. Our members are dedicated to protecting and advancing the interests of direct-care nurses, patients, and communities across the United States.

Over the course of the Covid-19 pandemic, the nation's attention has focused on the dire conditions under which nurses have been forced to work. Dangerous working conditions have put our nursing workforce at constant risk of injury, illness, and death, and have led many licensed registered nurses to leave bedside nursing entirely. **The staffing crisis we are experiencing now is the result of years of industry neglect and intentional policies of short-staffing and cost-cutting measures enacted by hospital employers.**

Nurses have consistently experienced dangerous working conditions including:

- Intentional low RN staffing levels imposed by hospital managers.
- Inadequate occupational health and safety protections.
- Insufficient stock of critical medical supplies and personal protective equipment (PPE).
- Increasing levels of violence in the workplace.

It's important to note that while the Covid crisis has exacerbated these challenges, nurses have been facing these issues in their hospital workplaces for *decades*.

As Congress looks to address the nurse staffing crisis, it is critical to resolve the root problems that are leading thousands of registered nurses to leave the bedside. **First and foremost, it is imperative that we clarify there is not a national shortage of trained and licensed RNs in the United States**. According to statistics from the National Council of State Boards of Nursing and the U.S. Bureau of Labor Statistics, there were approximately one million licensed registered nurses who were not employed as RNs in 2021. While we do not yet have updated BLS data on RN employment since 2021, the National Council of State Boards of Nursing data shows sustained increases in the number of nurse licenses nationally since 2021, suggesting that the nurse education and licensing pipeline is strong.

We don't have a "nurse shortage," but we do have a staffing crisis in our hospitals, brought on by the lack of good nursing jobs where RNs are valued for their work, have strong health and safety protections, and are not required to care for more patients at any given time than is safe for optimal, therapeutic care.

The hospital industry is using the false narrative of a "nursing shortage" to propose interventions that will reduce labor costs and maximize revenue without regard for health care workers or safe patient care. For several decades, the hospital industry has attempted to deskill the nursing profession by inappropriately pushing care to the lowest-cost and least-regulated setting, including displacing RNs with unlicensed or lower-licensed staff. The industry has been replacing RN professional judgment with health information technology, automation, remote monitoring tools, and "acute-care hospital-at-home" programs where patients are forced to rely on family members or themselves to provide complex clinical care that they have no training or licensing to provide. Hospital employers are also keen to focus Congressional action on bolstering the nursing workforce pipeline and other proposals that allow them to avoid responsibility for improving working conditions for nurses to stay at the bedside.

TABLE 1. **Data from the National Council of State Boards of Nursing, which reports the total number of licensed registered nurses, and the Bureau of Labor Statistics, which reports the total number of employed registered nurses, can be compared to estimate the number of actively licensed RNs who are not employed as RNs.**

Total Number of Registered Nurses, 2021*	4,316,687
Registered Nurses Total Employment, May 2021	3,333,920
Estimated Number of Actively Licensed RNs who are NOT Employed as RNs, 2021	**982,767**
Adjusted Total Number of Registered Nurses, 2021*	4,419,167
Adjusted Estimated Number of Actively Licensed RNs who are NOT employed as RNs, 2021*	**1,085,247**

**The National Council of State Boards of Nursing did not include reporting from Michigan in 2021, and therefore, their estimation of the total number of RNs is lower than the national total. The BLS data does include data from Michigan, in which they reported 102,480 employed RNs. Given this disparity, the first estimated number of actively licensed RNs who were not employed as RNs in 2021 is a conservative estimate. To allow for a more accurate comparison, we have added the Michigan BLS data to the total number of Registered Nurses in the adjusted estimation. This adjusted estimation does NOT account for licensed RNs who were not working as RNs in the state of Michigan.*

TABLE 2. **Recent data on the numbers of active RN licenses from the National Council of State Boards of Nursing shows a steady growth in licensed RNs in recent years, including a particularly large increase in licenses issued in 2023 thus far.**

Number of RN Licenses, 2021	5,066,932
Number of RN Licenses, 2022	5,328,873
Number of RN Licenses, as of 3/16/2023	5,523,906

We know that while the nursing workforce pipeline can and should be strengthened, in particular to diversify the nursing workforce and increase the number and diversity of preceptors and nursing school faculty, the key problem in our staffing crisis is not the number of graduating RNs. Every year, the United States continues to graduate more new nurses out of nursing school than ever before.[1] Experts project that over the next decade, the national RN workforce will not only replace the expected 500,000 retiring RNs but expand the workforce by almost one million registered nurses.[2] At the same time, data from 2019 to 2022 shows that the entirety of growth in RN employment during that period has occurred outside of hospitals and instead into other settings like outpatient clinics and doctors' offices.[3] This data confirms that graduating more nurses from nursing schools on its own will not solve the staffing crisis in American hospitals. We need to increase retention of nurses working in acute-care hospitals by treating them with the respect that nurses deserve and improving their working conditions.

NNU supports Congressional efforts to adequately fund and strengthen the RN workforce pipeline; however, these efforts must be paired with actions to revitalize the current workforce by increasing nurse retention and bringing licensed nurses who have left the hospital bedside back to work. **Focusing exclusively on nurse recruitment without simultaneously solving the problems of nurse retention will not fix the staffing crisis in American hospitals**.

For more details on the hospital nurse staffing crisis, please review our report titled, Protecting Our Front Line: Ending the Shortage of Good Nursing Jobs and the Industry-created Unsafe Staffing Crisis.

National Nurses United Urges the 118th Congress to Support the Following Proposals »

Prioritizing Retention of Bedside Nurses

» Federally mandate minimum nurse-to-patient staffing ratios, through passage of the **Nurse Staffing Standards for Hospital Patient Safety and Quality Care Act**. Currently, there are no federal mandates regulating the number of patients a registered nurse can care for at one time in U.S. hospitals. To reduce labor costs and increase profits, the hospital industry deliberately refuses to staff our nation's hospitals with enough nurses to care for patients safely and optimally. As a result, RNs are consistently required to care for more patients than is safe, compromising patient care and negatively impacting patient outcomes, subsequently pushing nurses to leave the bedside. Further, unsafe staffing levels put RNs' licenses at risk when they care for more patients at any given time than is safe.

› Studies show that when RNs are forced to care for too many patients at one time, patients are at higher risk of preventable medical errors, avoidable complications, falls and injuries,[4] pressure ulcers,[5] increased length of hospital stay, higher numbers of hospital readmissions, and death.[6]

› Numerous studies have documented disparities in care in hospitals that serve communities of color.[7] Studies have also found that registered nurse staffing levels in hospitals that serve communities of color are often lower, contributing to these disparities in care.[8] Setting a single standard of nursing care across hospitals will improve outcomes for patients of color including reduced readmission rates, increased satisfaction, and better obstetrical outcomes.[9]

› The failure by hospital employers to staff appropriately and provide the needed resources make it impossible for nurses to meet their ethical and professional obligations as RNs to provide safe, effective, and therapeutic nursing care.[10] These conditions have led nurses to experience severe moral distress and injury (often incorrectly labeled "burnout"); mental health issues such as stress, anxiety, depression, and post-traumatic stress disorder; and physical exhaustion. As a result, many nurses are leaving the hospital bedside.[11]

› **California is the only state in the country that has an RN-to-patient ratios statute, and studies confirm the significant impact such mandatory, minimum staffing ratios have had on improved patient outcomes**.[12] Research estimates that if the ratios mandate were implemented nationally thousands of lives would be saved each year.[13] The California ratios mandate has proven to reduce costs for hospitals by improving nurse safety and job satisfaction,[14] reducing spending on temporary RNs,[15] overtime costs,[16] and staff turnover.[17]

» Pass the **Workplace Violence Prevention for Health Care and Social Service Workers Act**, which would mandate that OSHA issue a Workplace Violence Prevention Standard for health care and social service workplaces. Health care and social service workers experience the highest rate of workplace violence of any profession in the United States[18] Nurses report being punched, kicked, bitten, beaten, choked, and assaulted on the job — and some have faced stabbings and shootings. The Covid-19 pandemic has exacerbated the hazard of workplace violence, with nurses reporting an increase of violent incidents on the job since the beginning of the pandemic.[19] This bill would require employers to develop unit-specific and facility-specific prevention plans rather than one-size-fits-all plans, and actively involve employees in developing, implementing, and reviewing the plan, and provide robust training programs for employees.[20] **Congress can improve retention rates of registered nurses by making hospitals safe places to work**.

» **Ensure that hospitals protect nurses and other workers from the hazards posed by emerging infectious diseases, including Covid-19, by mandating that OSHA issue final permanent standards that enforce protections for health care workers.** During the pandemic, hospital employers showed their utter disregard for nurses' health and safety by failing to implement proper infection control practices and failing to provide appropriate PPE. Moreover, the industry's misdeeds extend beyond mere negligence; it actively opposed measures that would protect nurses from exposure to Covid-19 or compensate them if they contract the virus. These occupational health and safety standards would provide nurses and other health care workers with enforceable tools to ensure hospitals are protecting them from workplace hazards. Congress should pass legislation to mandate that the Occupational Safety and Health Administration (OSHA) issue the following standards:

› A final permanent Covid-19 Health Care Standard to enforce Covid protections for health care workers.

- A final permanent standard on infectious diseases, that includes protections against all aerosol-transmissible diseases.

» Strengthen and protect the right of nurses and other health care workers to organize unions and bargain collectively, including:

- Passing the **Richard L. Trumka Protecting the Right to Organize (PRO) Act**, which would enact critical improvements to current labor law in order to protect the right for workers to organize a union and bargain collectively. The right to form a union provides workers with the power necessary to address issues in their workplace and bargain collectively for improvements that benefit both recruitment and retention. The dire need for this legislation, which has bipartisan support, has been made even clearer during this pandemic. Due to employer neglect, nurses have been forced to struggle together for the most basic safety protections at their hospitals and clinics. Union organizing has led to improvements in infectious disease protocols, staffing levels, workplace violence prevention programs, and safe patient handling programs, all of which directly improve patient care.
- Passing the **VA Employee Fairness Act**, which repeals restrictions on collective bargaining for VA clinicians, including RNs. For registered nurses, union advocacy and representation allow us to focus on what we do best: caring for our patients. Without full collective bargaining rights, nurses' ability to speak out on behalf of patients is hindered, and we are constrained from advocating for the highest quality of safe patient care that our veterans deserve. This bill, which has bipartisan support, brings the rights of Title 38 employees in the VA in line with other VA workers, as well as clinicians in Department of Defense hospitals, and in private sector facilities. Passing this bill is a critical step towards improving both the recruitment and retention of the VA's most valuable resource — those who care for our nation's heroes — and, in the process, improving patient care in the VA.

» Increase funding for OSHA enforcement programs and OSHA hiring of health care sector inspectors. As of Jan. 20, 2021, federal OSHA had received 12,831 complaints from workers since the beginning of the pandemic and reported opening a mere 357 inspections in response to complaints across all sectors (2.8 percent). Under the Biden administration, inspections in response to complaints have risen dramatically, nearly five-fold to 13 percent,[21] but this response rate is still unacceptably low. Congress should require OSHA to improve enforcement activities in the health care sector where enforcement historically has been lacking, including through inspector training and programs to hire inspectors with particular experience in health care settings.

REDLINES — NNU OPPOSES PROPOSALS TO »

» **Move care that should take place in acute-care facilities to other settings, including:**

  › Congress should not make permanent the temporary "flexibilities" given to the hospital industry during the pandemic. Programs like the Acute Hospital Care at Home (AHCaH) endanger patients requiring acute hospital-level care by allowing hospitals to treat them in their homes, where patients no longer have access to the mandated 24-hour nursing care and immediate availability of a registered nurse to treat worsening conditions. Additionally, AHCaH allows emergency responses in the home to be delayed up to 30 minutes. Finally, patients at home lack the full complement of resources available in a hospital setting to respond to unexpected complications or deterioration of patients' health status. These types of programs allow hospitals to shift care to inappropriate patient care settings rather than increasing acute inpatient capacity by investing in staffing and infrastructure.

  › Congress should not move in-person nursing care to tele-nursing and lower the standards of acute-care nursing practice. The standard of providing safe, effective and therapeutic nursing care is fundamental to patient care. These standards of nursing care can only be accomplished through continuous in-person assessments of a patient done by a qualified licensed registered nurse. RN-patient interactions involve a skilled evaluation of the patient's condition, and in these assessments, RNs must use their sense of sight, smell and touch to effectively care for their patient, which is impossible to do remotely. During the Covid-19 pandemic, the hospital industry successfully lobbied Congress to expand temporary flexibilities to telehealth programs, opening the door to proposals that would fundamentally alter the standards of nursing care. A nurse is unable to provide a high standard of nursing care over a video screen or on the phone. Without in-person nursing assessments, patient care is put at risk.

  › Congress should not weaken state licensing requirements and labor protections for RNs. Congress should oppose any effort to allow interstate nursing practice or establish a federal Nurse Licensure Compact, which is an interstate agreement that provides licensing reciprocity for registered nurses (RNs) and licensed vocational nurses (LVNs). Compact agreements also allow the practice of nursing across state lines using telehealth technology. Further, it allows major health care companies to outsource the provision of certain health care services to states where providers are less regulated and lower paid. Compact licensure allows for the outsourcing of jobs out of states with strong nurse union membership and enhancing profit for health care companies at the expense of patient care.

» **Infringe upon RNs' scope of practice.** Nursing practice is fundamentally holistic in nature. Registered nurses have extensive education and clinical experience that enables them to provide safe, therapeutic patient care. Attempts to break down registered nursing practice into tasks (often called "routinization"), and shift the tasks to unlicensed and lower-licensed staff (i.e. deskilling) to reduce labor costs, undermines safe patient care. As stated above, even the simplest RN-patient interactions involve skilled assessment and evaluation of the patient's overall condition. Subtle changes in a patient's skin tone, respiratory rate, demeanor, and affect provide critical information about their health and wellbeing that can be easily overlooked or misinterpreted by those without an RN's education and clinical experience.

  › Another term that the industry uses to disguise infringing upon RNs' scope of practice is "team nursing" or "team-based care" models, where RNs spend less time at the bedside where they can get to know a particular patient's needs and use their professional judgment to ensure that the patient's needs are met. Instead, they spend more time on paperwork and monitoring the work of other staff, leaving RNs demoralized and alienated.

  › Additionally, as Congress considers funding for community health workers, NNU strongly urges the inclusion of a narrow and precise definition of community health workers, so that there are no infringements on scope of practice and quality patient care can be protected.

- **Increase legal punitive measures on patients and family members who commit violence against nurses and other health care workers.** Elevating the crime of committing violence against nurses to a felony charge does not address the issues that allow the violence to occur in the first place. Hospital employers must be held responsible for preventing violence in the workplace by requiring them to develop and implement a workplace violence prevention plan tailored to specific workplaces and worker populations, with employee involvement in all steps of the plan.
- **Increase the number of immigrant nurses brought into the United States without additional labor protections.** Recruiters and employers have long used abusive and deceptive practices to force immigrant nurses to work in unfair or unsafe working conditions. We must ensure that employers cannot use coercive contracts and other abusive practices to prevent immigrant nurses from full exercise of their labor rights, including the right to organize unions.

Strengthening and Supporting the RN Workforce Pipeline

- Create a long-term, dedicated funding stream for tuition-free nursing programs at public community colleges. Tuition-free nursing programs, particularly if coupled with stipends to cover living expenses, diminish the financial and time constraints that are the most common barriers to higher education. With sufficient in-person (not simulated) pre-licensure clinical training, nurses with associate degrees in nursing (ADNs) can be ready for entry-level nursing positions **in two years**. All new RNs, regardless of the type of degree they have, then need to be paired with preceptors to make the transition to professional practice.
  - Congress should give funding priority to public community colleges located in health professional shortage areas (HPSAs) and medically underserved areas and populations (MUAs/MUPs). Linking community colleges with local pre-licensure clinical training and post-licensure job placement in public hospitals and critical shortage facilities increases the likelihood that RNs working in these areas will be culturally competent and share values that reflect the communities in which they work. Many HPSAs and MUAs/MUPs have higher percentages of underrepresented Black, Indigenous, People of Color (BIPOC) community members; locating nursing programs in these areas would tend to serve a more racially and ethnically diverse student population. In turn, increasing tuition-free access to nursing programs could lead to greater RN diversity and improve racial, ethnic, and other disparities in health care access, leading to greater health equity.
  - In recent years, there has been a focused effort on the part of the federal government and academic institutions to increase the numbers of advanced practice registered nurses (APRNs). While the United States has experienced dramatic growth in the number of APRNs in recent years, we now need to increase the number of licensed RNs working in acute-care hospitals. The number of nurse practitioners (NPs), the largest occupation among APRNs, increased by 109 percent between 2010 and 2017, while the number of RNs who were not APRNs grew only 22 percent during this same time period.[22] In 2023, according to the National Center for Workforce Analysis, the supply of nurse practitioners, nurse anesthetists, and nurse midwives are all currently over 100 percent adequacy in meeting demand and are predicted to rise to 173 percent, 137 percent, and 118 percent of adequacy, respectively, by 2030.[23]
- Support programs that build a culturally competent and diverse pipeline of nurses into bedside care, including increasing funding for and improving the Nursing Workforce Diversity Program (NWDP). It's well documented that patient-provider racial, ethnic, and linguistic concordance improves communication, trust, and health care quality, which is why it is concerning that numerous racial and ethnic groups are underrepresented in the RN workforce, particularly Latinx and Black RNs but also Asian, American Indian, and Alaskan Native RNs. Additionally, studies show that Black, Hispanic/Latinx, and Native American health care providers are more likely to practice in underserved communities.[24] Similarly, students from rural areas are more likely to practice in rural communities.[25] Congress should:
  - Adopt the President's budget request for an additional $32 million to support nursing education programs, including increasing the number of nurse faculty and clinical preceptors.
  - Significantly increase NWDP funding for Fiscal Year 2023.
  - Amend 42 U.S.C. § 296m to include National Nurses United in the list of organizations in Section (b). As the country's largest union and professional association of direct care registered nurses, we are well suited to provide the voice of labor in the nursing workforce diversity discussion.
  - Require the Health Resources and Services Administration (HRSA) to allocate sufficient funding for research to gather data to better identify racial and ethnic minorities that are underrepresented among registered nurses. This research should include collecting and disaggregating workforce and patient data for Asian, Asian American, and Pacific Islanders and for gender-oppressed and gender non-conforming people.
- Significantly increase funding for and improve the Nurse Corps Scholarship (NCSP) and Loan Repayment (NCLRP) Programs. While we applaud the one-time $200 million funding boost for these programs in the American Rescue Plan Act, these programs remain underfunded. The NCSP and NCLRP are highly competitive with far more

applicants for awards than available funding. The high number of nurses who apply for NCSP and NCLRP support but are turned down due to lack of funding demonstrates that RNs, NPs, and APRNs are ready to fulfill unmet needs in critical shortage facilities and schools of nursing but may need federal support because of their student debt obligations. Congress should:

- Increase NCSP and NCLRP funding to levels that ensure that all eligible applicants applying to the scholarship or loan repayment programs are fully funded, until all those residing in the United States have equitable access to high-quality care across the full range of health care services. Funding levels should be sufficient to meet the ongoing need for health care professionals.
- Congress should improve the programs by requiring HRSA to:
  - Increase NCLRP funding for faculty teaching positions. Funding for faculty teaching positions has been minimal historically and accounted for less than 10 percent of the NCLRP fiscal year 2023 budget.[26] Additionally, HRSA should prioritize placing NCLRP applicants in faculty positions in schools that have at least 50 percent of students from a disadvantaged background, followed by prioritizing the placement of applicants by absolute applicant debt levels rather than debt-to-salary ratio.
  - Use HPSA critical shortage facility scores and absolute debt levels — rather than a debt-to-salary ratio — in defining funding preference tiers in the NCLRP, as using the debt-to-salary ratio creates an incentive for paying lower wages. Moreover, HRSA should treat NCLRP loan repayment as nontaxable; and include in NCLRP loan forgiveness all loans that a nurse obtained for training in vocational or practical nursing for coursework required to become an RN, as well as loans that have been consolidated/refinanced with ineligible non-qualifying debt or loans of another individual if the eligible qualifying debt can be disaggregated from the ineligible non-qualifying debt.
  - Prioritize NCLRP awards by HPSA scores, followed by prioritization based on an applicant's absolute debt levels rather than a debt-to-salary ratio in awarding loan repayment funds.
  - Simplify and ease the ways in which applicants to the NCSP can adjust the expected family contribution based on their actual financial circumstances, including based on their independent status, if they are not dependents on another's income tax filings, have supported themselves in the prior year, or based on other relevant circumstances.
  - Increase NCSP funding, particularly for ADN students, as well as devoting some Tier 1 funding to part-time students to enable those with child or elder care responsibilities to attend school.
  - Substantially increase funding for NCSP "career pathway" awards which received only $2 million of the $89 million in funding in the fiscal year 2021 budget. This program provides scholarships to unlicensed assistive personnel (e.g., certified nursing assistants and home health aides) as well as licensed practical/vocational nurses so that they can become registered nurses.

- Address institutional and industry bias towards bachelor's degree of nursing (BSNs) versus associate degree of nursing (ADNs).
  - At the hospital level, the industry should be required to adjust practices that have limited the ability for nurses from underrepresented communities to find work. Most notably, many hospitals refuse to hire nurses with ADNs, choosing to prioritize hiring of nurses with four-year BSNs. Nurses with ADN and BSN degrees typically must fulfill the same education and clinical experience requirements, with the exception of courses primarily geared toward research, teaching, and management, and they must pass the same licensing examination. By choosing to prioritize BSN nurses, hospitals are restricting diversity in the workforce. A BSN requires a larger time and financial commitment, and statistics on RN graduates show that nurses from underrepresented communities, and specifically communities of color, are more likely to graduate with an ADN. It is important to note that hospitals' refusal to hire nurses with ADNs is happening while the hospital industry is attempting to delegate nursing work to lesser licensed and unlicensed personnel and family members.

- In addition to increasing the funding for the NCSP and NCLRP, Congress must reverse the bias these programs have shown towards APRNs and BSNs. It is important that the NCSP and NCLRP adequately fund ADN students.

- Create and adequately fund "career laddering" education, clinical placement, and training opportunities to support unlicensed support staff (e.g., certified nursing assistants and home health aides) or licensed practical/ vocational nurses in becoming registered nurses. As stated above, Congress should require HRSA to substantially increase funding for NCSP "career pathway" awards. Additionally, Congress should require the Center for Medicare and Medicaid Services (CMS) to create a payment add-on to support a career ladder for CNAs and LPNs/LVNs in acute-care hospitals to become RNs.

- Cancel educational debt for nurses. Nurses who work at the bedside providing direct patient care to members of their community put themselves at risk of exposure to infectious disease, including deadly viruses such as SARS-CoV-2. For the risk that nurses bear to illness, injury, and death from their work at the bedside and for their services to their patients and communities, Congress should take legislative action to cancel any educational debt of nurses.

REDLINES — NNU OPPOSES PROPOSALS TO »

» **Expand nurse apprenticeship programs.** We have witnessed numerous programs over the years that have exploited student nurses' labor, undermined licensure and scope of practice, and left nurses vulnerable. The industry seeks to exploit student nurses as a cheap labor force with little regard to their actual education. There is no uniform definition within the health care industry of what constitutes an "apprenticeship." Nurse apprentices do not have the same level of accountability as a licensed nurse. The licensed registered nurse is legally accountable for all care that is delegated to an apprentice nurse even though they may not have the staffing resources to appropriately direct, evaluate, and observe a nurse apprentice. This puts registered nurses' licenses in jeopardy. **Congress should ensure nursing students are afforded the opportunity to learn in the clinical environment with dedicated clinical preceptors who do not have a patient care assignment as part of their pre-licensure program.** Student nurses already are able to work in health care facilities as certified nursing assistants, patient care assistants, and other capacities that familiarize them with patient care environments that do not pose a risk to patient safety or rely upon unsafe delegation models.

» **Infringe upon RNs' scope of practice, including incorporating "team-based care" training models in nursing school curriculum.** As stated above, NNU is firmly opposed to proposals that aim to break apart nursing care, which is an inherently holistic practice, into discrete tasks that can be parceled out to unlicensed and lower-licensed staff, thus reducing labor costs while endangering patients. We also oppose modifying nursing school curriculum to advocate for this type of nursing care.

» **Push nursing students' education towards more simulated training rather than in-person clinical training and incorporate training in tele-nursing into their curriculum.** Recent studies show that the academic and clinical preparedness of nursing students is declining.[27] In recent years, experienced nurses have seen a trend in which student nurses, who enter their hospitals for their clinical rotations, are less prepared than in previous years, have had less experience with patients in real-life situations versus simulation labs, and are less supported by their instructors. While in-person clinical training needed to adjust following the onset of the Covid-19 pandemic, it is critical that Congress take action to better equip and expand in-person clinical training programs, not weaken education requirements by encouraging simulation trainings while compromising patient care.

» **Prioritize and expand enrollment in baccalaureate nursing programs, including Accelerated Nursing Programs.** There are many financial barriers to becoming a nurse imposed by the exorbitant expense of private programs and the lack of admission slots in public nursing programs. These barriers, added to other systemic issues, result in the underrepresentation of numerous racial and ethnic groups in the RN workforce. NNU strongly urges Congress to prioritize funding and expanding tuition-free nursing programs at public community colleges and address the industry bias towards BSNs rather than ADNs.

» **Give large sums of money to private institutions and hospitals without requirements to address harmful working conditions and access to care issues.** Funding for educational institutions and hospitals must be targeted to those most in need, rural and underserved communities, and must be conditioned to expand bedside RN capacity, improve working conditions for registered nurses, and prevent closures of acute-care units or critical access hospitals.

ENDNOTES

1 National Council of State Boards of Nursing. 2009-20. "NCLEX Pass Rates." National Council of State Boards of Nursing. https://www.ncsbn.org/exams/exam-statistics-and-publications/nclex-pass-rates.page.

2 Buerhaus, P. I., Staiger, D. O., Auerbach, D. I., Yates, M. C., & Donelan, K. (2022). Nurse Employment During The First Fifteen Months Of The COVID-19 Pandemic. *Health Affairs*, 41(1), 79-85. https://doi.org/10.1377/hlthaff.2021.01289.

3 Ibid.

4 Kim J, Lee E, Jung Y, Kwon H, Lee S. Patient-level and organizational-level factors influencing in-hospital falls. *J Adv Nurs.* 2022 Nov;78(11):3641-3651. doi: 10.1111/jan.15254. Epub 2022 Apr 20. PMID: 35441709; PMCID: PMC9790490.

5 Kim J, Lee JY, Lee E. Risk factors for newly acquired pressure ulcer and the impact of nurse staffing on pressure ulcer incidence. *J Nurs Manag*. 2022 Jul;30(5):O1-O9. doi: 10.1111/jonm.12928. Epub 2020 Feb 25. PMID: 31811735; PMCID: PMC9545092.

6 Increased LOS, Mortality and Readmission: Dierkes, A. M., Aiken, L. H., Sloane, D. M., Cimiotti, J. P., Riman, K. A., & McHugh, M. D. (2022). Hospital nurse staffing and sepsis protocol compliance and outcomes among patients with sepsis in the USA: a multistate cross-sectional analysis. *BMJ Open*, 12(3), e056802. https://doi.org/10.1136/bmjopen-2021-056802.

7 Carthon, J. M. B., Brom, H., McHugh, M., Daus, M., French, R., Sloane, D. M., Berg, R., Merchant, R., & Aiken, L. H. (2022). Racial Disparities in Stroke Readmissions Reduced in Hospitals With Better Nurse Staffing. *Nurs Res*, 71(1), 33-42. https://doi.org/10.1097/nnr.0000000000000552.

8 Lake, E. T., Staiger, D., Edwards, E. M., Smith, J. G., & Rogowski, J. A. (2017). Nursing Care Disparities in Neonatal Intensive Care Units. *Health Serv Res*. https://doi.org/10.1111/1475-6773.12762.

9 Brooks-Carthon, J. M., Kutney-Lee, A., Sloane, D. M., Cimiotti, J. P., & Aiken, L. H. (2011). Quality of Care and Patient Satisfaction in Hospitals With High Concentrations of Black Patient. *Journal of Nursing Scholarship*, 43(3), 301-310. https://doi.org/10.1111/J.1547-5069.2011.01403.X.

10 National Nurses United. 2020. "Deadly Shame: Redressing the Devaluation of Registered Nurse Labor Through Pandemic Equity." National Nurses United. https://www.nationalnursesunited.org/sites/default/files/nnu/graphics/documents/1220_Covid19_DeadlyShame_PandemicEquity_WhitePaper_FINAL.pdf.

11 Even health care management consulting companies like McKinsey and staffing agencies like ShiftMed have released surveys showing that between 32 percent and 66 percent of nurses report they are inclined to leave their direct-care position, or the profession.

Berlin G et al. February 17, 2022. "Surveyed nurses consider leaving direct patient care at elevated rates." *McKinsey & Company.* https://www.mckinsey.com/industries/healthcare/our-insights/surveyed-nurses-consider-leaving-direct-patient-care-at-elevated-rates.

ShiftMed. September 22, 2022. "Staffing Shortages Push Nurses to the Brink, With Nearly Two-Thirds Considering a Departure from the Profession in Next Two Years." Available at: https://www.shiftmed.com/press-releases/shiftmeds-annual-state-of-nursing-survey-2022/.

12 Lasater, K. B., Aiken, L. H., Sloane, D. M., French, R., Martin, B., Reneau, K., Alexander, M., & McHugh, M. D. (2020). Chronic hospital nurse understaffing meets COVID-19: an observational study. *BMJ quality & safety*, bmjqs-2020-011512. https://doi.org/10.1136/bmjqs-2020-011512.

13 Aiken, L. H., Sloane, D. M., Cimiotti, J. P., Clarke, S. P., Flynn, L., Seago, J. A., Spetz, J., & Smith, H. L. (2010). Implications of the California nurse staffing mandate for other states. *Health Serv Res*, 45(4), 904-921. https://doi.org/10.1111/j.1475-6773.2010.01114.x.

14 Spetz J. 2008. "Nurse Satisfaction and the Implementation of Minimum Nurse Staffing Regulations." *Policy Polit Nurs Pract*. 9(1):15-21. https://pubmed.ncbi.nlm.nih.gov/18390479/.

15 Schmit, J. "Nursing shortage drums up demand for happy nomads." *USA Today*. June 9, 2005. (Quoting Tenet Health System Chief Nursing Officer. Travel nurses cost hospitals at least 20 percent more than a nurse employee even when benefits are factored in. Full-time employees are paid at least 1.5 times their regular salary for overtime hours worked.)

16 Ibid.

17 Bland-Jones, Cheryl. "Revisiting Nurse Turnover Costs, Adjusting For Inflation." *Journal of Nursing Administration*. 2008; 38(1): 11-18, 12. (Finding that the total RN turnover costs for fiscal year 2017 were between $7,875,000 and $8,449,000, and estimating an RN annual turnover rate at 18.5 percent.)

Aiken. 2010. supra, note 5 at 913. (Finding that California RNs, after the implementation of the mandated nurse-to-patient ratios, experienced burnout at significantly less rates than those in New Jersey and Pennsylvania. 20 percent California RNs reported being dissatisfied with their job, compared to 26 percent in New Jersey, and 29 percent in Pennsylvania. Both burnout and job dissatisfaction are precursors of voluntary turnover.)

18 Bureau of Labor Statistics, U.S. Department of Labor. Available at https://www.bls.gov/iif/oshwc/cfoi/ workplace-violence-healthcare-2018.htm.

19 National Nurses United, fifth survey of nurses during the Covid-19 pandemic. Available at: https://www.nationalnursesunited.org/press/fifth-survey-of-national-nurses-highlights-continued-hospital-failures.

20 Fernandes, C. et al. The Effect of an Education Program on Violence in the Emergency Department. *Annals of Emerg. Medicine*. 2002; 39(1):47-55. A 2002 study found that interactive, hands-on workplace violence recognition and intervention training can be effective in reducing violence incident rates and, importantly, that refresher trainings are needed to maintain those effects.

21 Under the Biden administration, as of November 7, 2021, federal OSHA received 3,794 complaints from workers and reported as having opened 493 inspections in response to complaints (13%). Occupational Safety and Health Administration. Nov 8, 2021. "COVID-19 Response Summary." U.S. Department of Labor. https://www.osha.gov/enforcement/covid-19-data.

22 Auerbach D. et al. 2020. Implications Of The Rapid Growth Of The Nurse Practitioner Workforce In The US: An examination of recent changes in demographic, employment, and earnings characteristics of nurse practitioners and the implications of those changes. *Health Affairs*. 39(2), 273-279.

23 Health Resources and Services Administration. 2023. "Health Workforce Projections." U.S. Department of Health and Human Services. https://data.hrsa.gov/topics/health-workforce/workforce-projections.

24 Pittman P et al. 2021. Health Workforce for Health Equity. *Medical care*, 59(Suppl 5), S405–S408.
https://doi.org/10.1097/MLR.0000000000001609. Citing Goodfellow A et al. Predictors of primary care physician practice location in underserved urban or rural areas in the United States: a systematic literature review. Acad Med. 2016;91:1313–1321 and Mertz E et al. Underrepresented minority dentists: quantifying their numbers and characterizing the communities they serve. *Health Aff.* 2016;35:2190–2199.

25 Ibid. Citing Rabinowitz H et al. The relationship between entering medical students' backgrounds and career plans and their rural practice outcomes three decades later. *Acad Med.* 2012;87:493–497. MacQueen I et al. Recruiting rural healthcare providers today: a systematic review of training program success and determinants of geographic choices. *J Gen Intern Med.* 2018;33:191–199.

26 Health Resources and Services Administration. 2023. "Fiscal Year 2024 Health Resources and Services Administration Justification of Estimates for Appropriations Committees." U.S. Department of Health and Human Services. https://www.hrsa.gov/sites/default/files/hrsa/about/budget/budget-justification-fy2024.pdf.

27 Buerhaus, P. I., Staiger, D. O., Auerbach, D. I., Yates, M. C., & Donelan, K. (2022). Nurse Employment During The First Fifteen Months Of The COVID-19 Pandemic. *Health Affairs*, 41(1), 79-85.

National Nurses United
The National Voice for Direct-Care RNs

WASHINGTON DC
8455 Colesville Road
Suite 1100
Silver Spring MD 20910
phone: 800-287-5021
fax: 240-235-2019

OAKLAND
155 Grand Avenue
Suite 100
Oakland CA 94612
phone: 800-504-7859
fax: 510-663-1625

February 15, 2023

Senator Bernard Sanders, Chairman
Senator Bill Cassidy, Ranking Member
Committee on Health, Education, Labor and Pensions
U.S. Senate
428 Senate Dirksen Office Building
Washington D.C. 20510

Dear Chairman Sanders, Ranking Member Cassidy, and Members of the Committee,

National Nurses United is the largest union and professional association of registered nurses (RNs) in the United States, representing nearly 225,000 nurses across the country. Our members have been on the frontlines of the Covid-19 response for three years and are dealing first-hand with the repercussions of the nurse staffing crisis that the health care industry is facing today. We write to you today in advance of your hearing titled, "Examining Health Care Workforce Shortages: Where Do We Go from Here?" to provide you with frontline worker insights into the working conditions that have created this staffing crisis, and to discuss the important solutions needed to address this crisis and ensure a robust health care workforce in the future.

First and foremost, it is imperative that we clarify there is not a national shortage of trained and licensed RNs in the United States. According to statistics from the National Council of State Boards of Nursing and the U.S. Bureau of Labor Statistics, there are at least 1.3 million actively licensed registered nurses who are not currently employed as RNs. We don't have a "nurse shortage," but **we do have a staffing crisis, brought on by the lack of good nursing jobs where RNs are valued for their work, have strong health and safety protections, and are not required to care for more patients at any given time than is safe for optimal, therapeutic care.**

Throughout the Covid-19 pandemic, nurses have been dealing with dangerous working conditions, including intentional low RN staffing levels, inadequate health and safety protections, insufficient stock of critical medical supplies and PPE, and increasing levels of violence in the workplace. While the Covid crisis has exacerbated these challenges, nurses have been facing these issues in their hospital workplaces for decades. **The staffing crisis we are experiencing now is the result of years of industry neglect and intentional policies of short-staffing and cost-cutting measures enacted by hospital employers.**

The hospital industry is using the false narrative of a "nursing shortage" to propose interventions that will reduce labor costs and maximize revenue without regard for health care workers or patient care. For several decades, the hospital industry has attempted to deskill the nursing profession by inappropriately pushing care to the lowest-cost and least-regulated setting, including substituting nursing care provided by licensed RNs for unlicensed, or lower-licensed, care to reduce labor costs. The attack on nursing practice and patient advocacy also includes displacing RNs and RN professional judgment with health information technology, automation, remote monitoring

tools and, ultimately, abandoning the patient by leaving complex clinical care to be provided in the home by family or even by the patient alone. Additionally, the industry has lobbied for bringing in more immigrant nurses into the U.S. to solve the staffing crisis. We know that recruiters and employers have long used abusive and deceptive practices to force immigrant nurses to work in unfair or unsafe working conditions, which is why we must ensure that all immigrant nurses are guaranteed the strongest labor protections, including the right to organize.

Hospital industry mistreatment and neglect of RNs and other health care workers has led many health care workers to leave their respective facilities in order to protect their health, wellbeing, and licenses. The hospital industry's own actions have created the staffing crisis in health care.

To that point, the first step to address this staffing crisis is to revitalize the workforce by increasing nurse retention and bringing licensed nurses who have left the bedside back to work. To do this, it is critical that the federal government implement policies that will require the hospital industry to provide safe and healthy workplaces.

Nurses are leaving the bedside because their employers refuse to staff their units appropriately and fail to supply the resources necessary to provide safe, therapeutic patient care. Many hospitals have chosen to adopt policies that result in high patient caseloads that compromise the health and safety of both nurses and patients. Moreover, hospital employers have failed to implement programs to protect nurses from infectious diseases, prevent violence, and enable safe patient handling so nurses can avoid workplace musculoskeletal injuries.

Hospital employers have created a vicious cycle of deteriorating workplace conditions that has exacerbated the staffing crisis. Although working conditions have been deteriorating for decades, the problems intensified during the pandemic. Hospital employers showed their utter disregard for nurses' health and safety by failing to implement proper infection control practices and failing to provide appropriate PPE. Nurses working on the pandemic's front lines have been experiencing severe moral distress and injury (often incorrectly labeled "burnout"); mental health issues such as stress, anxiety, depression, and post-traumatic stress disorder; and physical exhaustion.

To bring nurses back to the bedside and increase nurse retention, NNU recommends the following solutions:

- Congress must mandate minimum nurse-to-patient staffing ratios, through passage of the Nurse Staffing Standards for Hospital Patient Safety and Quality Care Act, sponsored by Senator Sherrod Brown and Congresswoman Jan Schakowsky.
- The Occupational Safety and Health Administration (OSHA) must issue a final permanent Covid-19 Health Care Standard to enforce Covid protections for health care workers. Further, OSHA should issue an Infectious Diseases standard, so that workplace protections will be enforced during future infectious disease outbreaks.
- Congress must pass the Workplace Violence Prevention for Health Care and Social Service Workers Act, sponsored by Congressman Joe Courtney and passed in the House of Representatives, and introduced by Senator Tammy Baldwin in the 117th Congress. The bill would mandate that OSHA issue a Workplace Violence Prevention Standard for health care and social service workplaces.
- The federal government must do everything in its power to restore and protect the right of nurses and other health care workers to organize and bargain collectively, including passing the VA Employee Fairness Act and the PRO Act which both passed the House of Representatives in the 117th Congress.

While there is not a national nursing shortage in the United States, there is a lack of racial, ethnic, cultural, linguistic, and socioeconomic diversity within the current nursing workforce. This challenge has resulted from a lack of investment in nursing education, job placement, and hospital industry practices that have restricted the pipeline of nurses from socioeconomically diverse and underserved communities.[1] The federal government should take measures to recruit nurses from underserved communities, and to ensure that hospital industry practices support a diverse nursing pipeline.

Diversity in the health care workforce facilitates health care access and health care quality, necessary elements of health equity. Patient-provider racial, ethnic, and linguistic concordance improves communication, trust, and health care quality. Black, Indigenous, and People of Color communities, along with rural communities, often have fewer health care professionals practicing locally and even fewer who are culturally and linguistically competent. Studies show that Black, Hispanic/Latinx, and Native American health care providers are more likely to practice in underserved communities.[2] Similarly, students from rural areas are more likely to practice in rural communities.[3]

To increase diversity within the nursing workforce, investments must be made to support education and job placement for nurses from underrepresented communities. This should include the following investments:

- Long-term funding for tuition free nursing programs at community colleges;
- Increased funding for the Nursing Workforce Diversity Program;
- Increased funding for Nurse Corps scholarship and loan repayment programs.

At the hospital level, the industry needs to adjust practices that have limited the ability for nurses from underrepresented communities to find work. Most notably, some hospitals refuse to hire nurses with an associate degree in nursing (ADN), choosing to prioritize hiring of nurses with four-year bachelor's degrees of nursing (BSNs). Nurses with ADN and BSN degrees typically must fulfill the same education and clinical experience requirements, with the exception of courses primarily geared toward research, teaching, and management, and they must pass the same licensing examination. By choosing to prioritize BSN nurses, hospitals are restricting diversity in the workforce. A BSN requires a larger time and financial commitment, and statistics on RN graduates show that nurses from underrepresented communities, and specifically communities of color, are more likely to graduate with an ADN. It is important to note that hospitals refusing to hire nurses with ADNs is happening while the hospital industry is attempting to delegate nursing work to lesser licensed and unlicensed personnel and family members.

As the committee explores approaches to addressing the current health care staffing crisis, it is crucial to protect RNs' scope of practice. We urge you to focus on providing the resources needed to

---

[1] There was a big one-time bump of $200 million in workforce funding in the FY 2021 COVID-19 Supplemental funding.

[2] Pittman P et al. 2021. Health Workforce for Health Equity. Medical care, 59(Suppl 5), S405–S408. https://doi.org/10.1097/MLR.0000000000001609. Citing Goodfellow A et al. Predictors of primary care physician practice location in underserved urban or rural areas in the United States: a systematic literature review. Acad Med. 2016;91:1313–1321 and Mertz E et al. Underrepresented minority dentists: quantifying their numbers and characterizing the communities they serve. Health Aff. 2016;35:2190–2199

[3] Ibid.. Citing Rabinowitz H et al. The relationship between entering medical students' backgrounds and career plans and their rural practice outcomes three decades later. Acad Med. 2012;87:493–497. MacQueen I et al. Recruiting rural healthcare providers today: a systematic review of training program success and determinants of geographic choices. J Gen Intern Med. 2018;33:191–199

educate more RNs in two-year nursing programs, which enable nurses to enter practice in two years rather than four, rather than on "upskilling" other workers. Nursing practice is fundamentally holistic in nature. Registered nurses have extensive education and clinical experience that enables them to provide safe, therapeutic patient care. Attempts to break down registered nursing practice into tasks, and shifting the tasks to unlicensed workers, undermines safe patient care. Even the simplest RN-patient interactions involve skilled assessment and evaluation of the patient's overall condition. Subtle changes in a patient's skin tone, respiratory rate, demeanor, and affect provide critical information to their health and wellbeing that can be easily overlooked or misinterpreted by those without an RN's education and clinical experience.

Attached to this letter is NNU's report, "Protecting Our Front Line: Ending the Shortage of Good Nursing Jobs and the Industry-Created Unsafe Staffing Crisis," which contains more detailed information on the hospital industry practices that have created the nurse staffing crisis we are experiencing right now, and NNU's proposed solutions to increase nurse retention and diversity.

We look forward to working with your committee to protect the workplace health and safety of nurses, improve staffing levels and nurse retention, and build a sustainable nursing workforce well into the future.

Sincerely,

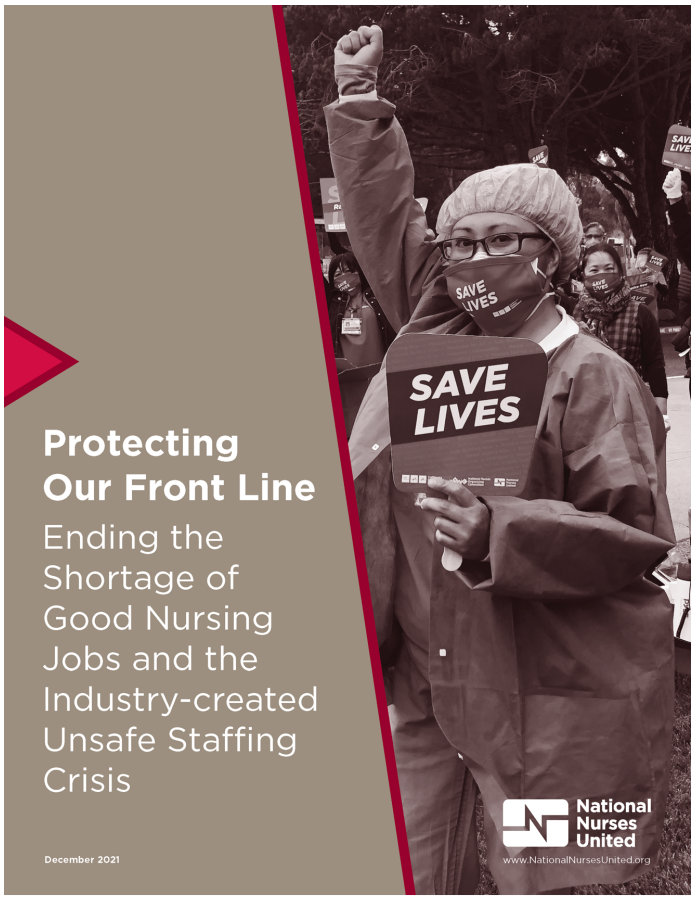
Bonnie Castillo, RN
Executive Director, National Nurses United

Zenei Cortez, RN
President, National Nurses United

Deborah Burger, RN
President, National Nurses United

Jean Ross, RN
President, National Nurses United

Nancy Hagans, RN
President, National Nurses United


SAVE LIVES
SAVE LIVES
Protecting Our Front Line
Ending the Shortage of Good Nursing Jobs and the Industry-created Unsafe Staffing Crisis
December 2021
National Nurses United
www.NationalNursesUnited.org

INTRODUCTION

In this report, National Nurses United (NNU) describes how the hospital industry has driven registered nurses (RNs) from the bedside. As the largest union and professional association of registered nurses with more than 175,000 members working at the bedside in nearly every state in the nation, NNU proposes steps that Congress and the executive branch must take to keep RNs at the bedside, encourage licensed RNs not currently providing direct patient care to return to the bedside, and improve patient care in U.S. hospitals. This report begins with an executive summary, followed by sections detailing how pre-pandemic hospital industry practices of unsafe staffing and poor working conditions have driven nurses away from the bedside. Next, the report details the hospital industry's failure to prepare for the pandemic despite repeated, urgent calls from RNs, and hospital employers' active transgressions that resulted in the horrific conditions nurses experienced during the pandemic. Finally, the report discusses legislative and regulatory actions to address both retention and recruitment of bedside registered nurses, calling on Congress and the executive branch to act immediately to end the industry-created unsafe staffing crisis by ensuring safe and optimal working conditions for nurses and by supporting programs to create a culturally competent and diverse pipeline of nurses into bedside care. Lastly, the report offers concluding remarks on the pandemic's effects on nurses, their coworkers, and their patients.

TABLE OF CONTENTS

EXECUTIVE SUMMARY: A SHORTAGE OF GOOD NURSING JOBS, NOT A SHORTAGE OF NURSES

For decades, the hospital industry has operated on a model with one goal: maximize net revenue. These profits come at the expense of both patient care as well as worker health and safety. A hospital is not a factory, and health care workers are not machines. After years of industry neglect and intentional policies of short-staffing, registered nurses (RNs) and their patients are facing a crisis of unsafe staffing and unsafe working conditions, exposed by the Covid-19 pandemic but dating back far longer.

There is no shortage of RNs. As of Nov. 6, 2021, the National Council of State Boards of Nursing reported that there are more than 4.4 million RNs with active licenses,[1] yet according to the U.S. Bureau of Labor Statistics, there are only 3.2 million people who are employed as RNs, with 1.8 million employed in hospitals.[2] In addition, except for a handful of states, there are sufficient numbers of registered nurses to meet the needs of the country's patients, according to a 2017 U.S. Department of Health and Human Services (HHS) report on the supply and demand of the nursing workforce from 2014 to 2030.[3] Moreover, HHS projected that most states (43) would have surpluses in 2030.[4] **Again, there is no shortage of RNs. Rather, there is a shortage of good, permanent nursing jobs where RNs are fully valued for their work at the bedside through safe patient staffing levels, strong union protections, and safe and healthy workplaces.**

Importantly, registered nursing can be a pathway to good union jobs for people from Black, Indigenous, people of color (BIPOC) communities and underserved communities, but hiring and educational policies by the hospital industry have restricted the pipeline of nurses from socioeconomically diverse and underserved communities. **Although there is no general nursing shortage, the lack of racial, ethnic, cultural, linguistic, and socioeconomic diversity within the current nursing workforce reflects the need for increasing the numbers of and support for socioeconomically diverse registered nurses from BIPOC communities and other underserved communities.** Racial and socioeconomic diversity within the nursing workforce is crucial for both improving our nation's health and achieving health equity.[5]

What is understaffing or short-staffing?

An intentional practice in which hospital management does not schedule an appropriate number of registered nurses, with the appropriate clinical experience, to safely care for patients in a hospital unit, driven by a desire to increase hospital profits. Employers do not maintain a robust pool of nurses from which they can increase staffing when patient loads increase, repeatedly cancel or "call-off" nurses who are scheduled to work, and are slow to fill permanent RN positions.

HOSPITALS PROFIT: To reduce labor costs and to increase profits, the hospital industry deliberately refuses to staff our nation's hospitals with enough nurses to care for patients safely and optimally, harming both nurses and patients in the process. Even before Covid-19, the hospital industry had driven nurses away from direct nursing care at the bedside by adopting policies that result in high patient caseloads and unsafe working conditions, such as intentional understaffing of units across the hospital. Further, hospitals consistently fail to protect nurses from health and safety hazards in the hospital including infectious diseases, workplace violence, and musculoskeletal injury. Because hospital employers fail to protect nurses on the job and fail to provide nurses with the staff and resources needed for them to give safe, therapeutic care, nurses face moral distress, preventable dangers, and job dissatisfaction, leading many nurses to leave the bedside — or to leave the nursing profession altogether — to protect themselves, their nursing licenses, their families, and their patients. All the while, the profit margins of hospitals continue to grow at the expense of nurse safety and patient care.

PATIENTS SUFFER: Unsafe staffing levels and poor working conditions make it impossible for nurses to meet their ethical and professional obligations as RNs to provide safe, effective, and therapeutic nursing care. Studies have shown that adequate staffing levels through RN-to-patient ratios result in better patient outcomes, and health and safety programs not only protect workers, but improve the health and safety of patients as well.

NURSES LEAVE: Hospital employers' utter disregard for the lives of nurses, their patients, and their families during the pandemic has resulted in both a physical and psychological toll on nurses. The failure by hospital employers to staff appropriately and provide the resources needed to provide safe, therapeutic patient care has caused nurses to experience severe moral distress and injury (often incorrectly labeled "burnout"); mental health issues such as stress, anxiety, depression, and post-traumatic stress disorder; and physical exhaustion. As a result, many nurses are leaving the bedside. If hospitals protected nurses with safe working conditions and safe staffing rather than pushing nurses to do more and more with less and less, we could keep more nurses at the bedside.

What are mandatory minimum RN-to-Patient Ratios?

Believe it or not, there are no federal mandates regulating the number of patients a registered nurse can care for at one time in U.S. hospitals. As a result, RNs are consistently required to care for more patients than is safe, compromising patient care and negatively impacting patient outcomes. Mandatory minimum RN-to-patient ratios would require that hospitals adequately staff every unit. This will improve patient care and reduce nurse turnover.

THERE'S A SOLUTION TO THIS CRISIS. To end the nurse staffing crisis and to bring nurses back to the bedside, NNU calls on Congress and the Biden administration to adopt federal policies that value the vital work of direct patient care RNs and that ensure employers meet their legal obligations to provide safe and healthy workplaces.

First, the federal government should take measures to ensure the retention of nurses at the bedside by valuing the lives of nurses through quality, permanent jobs. This must include passage of the Nurse Staffing Standards for Hospital Patient Safety and Quality Care Act, which would establish mandatory, minimum RN-to-patient ratios. It must also include optimal workplace safety protections, fair wages, and robust union rights — including conditioning future pandemic relief funding for the hospital industry on implementing nurse retention measures.

Second, the federal government should take measures to recruit nurses from underserved communities by vigorously funding nursing education and job placement in a manner that realigns our health care system to meet the needs of patients rather than the aims of the hospital industry's bottom line, and that ensures the nursing workforce reflects the racial, ethnic, cultural, linguistic, and socioeconomic diversity of patients. The unprecedented crisis of the Covid-19 pandemic provides the opportunity to fight for the protections, pay, and dignity that nurses deserve.

NNU PROPOSALS TO END THE INDUSTRY-CREATED NURSE STAFFING CRISIS

SOLUTIONS: CONGRESSIONAL ACTIONS

Nurse Retention Measures

- Pass the Nurse Staffing Standards for Hospital Patient Safety and Quality Care Act (S. 1567, H.R. 3165 in the 117th Congress)
- Pass the Workplace Violence Prevention for Health Care and Social Service Workers Act (H.R. 1195 in the 117th Congress)
- Pass the Protecting the Right to Organize (PRO) Act (S. 420, H.R. 842 in the 117th Congress)
- Pass the VA Employee Fairness Act (S. 771, H.R. 1948 in the 117th Congress)
- Increase funding for OSHA enforcement programs and OSHA hiring of health care sector inspectors
- Pass legislation mandating paid sick, family, and precautionary leave for nurses and other workers

Pandemic Risk Mitigation Measures

- Pass legislation requiring hospitals and government to maintain and report on personal protective equipment (PPE) and medical supply stockpiles
- Pass legislation expanding Defense Production Act of 1950 (DPA) powers over PPE and medical supply chains during public health emergencies
- Pass legislation prohibiting the reuse and extended use of single-use PPE

Pandemic Effects Mitigation Measures

- Pass legislation to establish presumptive eligibility for workers' compensation and disability and death benefits for nurses
- Pass legislation providing free crisis counseling and mental health services to nurses
- Pass legislation on educational debt cancellation for nurses

"They call us heroes and treat us like zeroes!"

Throughout the pandemic, there has been a jarring contradiction between the saccharine and excessive celebration of nurses as heroes for risking their and their families' lives and the utter disregard of nurse safety by the hospital industry. The disposability of nurses during the pandemic could be plainly observed as the hospital industry refused to provide necessary optimal personal protective equipment; sick or quarantine leave and pay; Covid-19 tests for employees; mandated excessive hours and unsafe shifts; demanded nurses work even if they had been exposed to Covid-19 or were recovering from it; and disciplined nurses who spoke out about unsafe conditions for workers and their patients.[6]

For hospital employers, the Covid-19 pandemic has become the ready excuse to waive their legal duties as employers to protect nurses and other workers who provide essential, life-sustaining labor, and who have a duty to provide optimal, therapeutic care to their patients. Registered nurses are a critical public health resource.

- Pass legislation establishing social support programs for nurses (e.g., programs providing free childcare, alternate housing, meals, and transportation)
- Pass legislation to provide nurses essential worker pay

Measures to Strengthen and Support the RN Workforce Pipeline

- Create a long-term, dedicated funding stream for tuition-free nursing programs at public community colleges
- Increase funding for the Nursing Workforce Diversity Program
- Increase funding for the Nurse Corps Scholarship and Loan Repayment Programs

SOLUTIONS: EXECUTIVE AND REGULATORY ACTIONS

Nurse Retention Measures

- The Centers for Medicare and Medicaid Services (CMS) should require that hospitals meet minimum safe RN-to-patient ratios as a condition of participation in Medicare
- Issue a permanent OSHA standard on Covid-19 based on the Covid-19 Health Care Emergency Temporary Standard
- Issue an OSHA standard on infectious disease
- Issue an OSHA standard on workplace violence prevention in health care and social service settings
- Issue an OSHA standard on safe patient handling
- Issue an OSHA directive to improve enforcement activities in the health care sector
- Hire and train more OSHA inspectors with health care sector expertise
- Adopt CMS rules to penalize hospitals that cannot ensure labor peace
- Support the PRO Act (S. 420, H.R. 842) and the VA Employee Fairness Act (S. 771, H.R. 1948 in the 117th Congress)
- Issue an executive order or take regulatory action to provide all federal workers and federal contractors paid sick, family, and precautionary leave

Pandemic Risk Mitigation Measures

- Require hospitals and government to maintain and report on PPE and medical supply stockpiles through CMS regulation
- Fully invoke and exercise Defense Production Act of 1950 powers to coordinate the manufacture and distribution of PPE and medical supplies
- Rescind all CDC and other federal agency crisis standards that allow the reuse and extended use of single-use PPE and that do not fully recognize aerosol transmission of Covid-19
- Require hospitals to adopt Covid-19 infectious disease precautions, including:
  - Patient isolation, screening, universal masking, and more
  - Free vaccines and testing of workers and patients
  - Contact tracing and communication about Covid-19 cases

Pandemic Effects Mitigation Measures

- Establish presumptive eligibility for disability and death benefits for nurses and workers' compensation for federally employed nurses
- Require hospitals to provide free crisis counseling and mental health services of the nurse's choosing
- Take executive action on nurse educational debt cancellation
- Provide essential worker pay for nurses who are federal employees or contractors

Measures to Strengthen and Support the RN Workforce Pipeline

- Improve the Nursing Workforce Diversity Program
- Improve the Nurse Corps Scholarship Program
- Improve the Nurse Corps Loan Repayment Program

PART I. HOSPITAL INDUSTRY PRACTICES DRIVE NURSES AWAY FROM THE BEDSIDE

In recent decades, the hospital industry has deliberately deprioritized patient care and nursing health and safety in order to maximize profits. As a result, nurses and their patients are facing a crisis of unsafe staffing and unsafe working conditions that has resulted in nurses fleeing the unbearable working conditions in acute-care hospitals. Nurses are pursuing nursing work in other settings, leaving the profession for other types of work, or retiring. As discussed below, the hospital industry's devaluation of RNs began long before the Covid-19 pandemic through inadequate health and safety protections; understaffing; deskilling; and the substitution of unpaid family care,[7] unlicensed, or lower-licensed care to reduce labor costs.

THE HOSPITAL INDUSTRY INTENTIONALLY ADOPTS POLICIES OF UNDERSTAFFING

The unsafe staffing crisis is part and parcel of the hospital industry's attempt to squeeze profits out of nurses and their patients. With an eye on reducing costs and increasing profits, the hospital industry purposely adopted models from the manufacturing industry — like bare-bones staffing that makes nurses unable to safely care for patients and "just-in-time" supplies that arrive precisely when needed — to limit spending on human and other resources. Hospital employers spent much of the mid- to late-1990s reducing their RN workforce through layoffs and attrition in attempts to reengineer and restructure health care services to emulate industrial models of productivity improvement.[8] Hospitals regularly understaff units with fewer numbers of nurses than are actually required to safely and optimally care for the numbers of admitted patients and their severity of illness.[9] Rather than scheduling sufficient numbers of nurses to ensure that each RN has a manageable patient load to safely provide all needed care and maintaining a robust pool of nurses from which to draw when patient loads increase unexpectedly, hospitals routinely opt for bare-bones staffing. Hospitals often cancel or "call off" nurses who are scheduled to work and are slow to fill permanent RN positions. Even during Covid-19 surges, hospitals have canceled contracts with travel or agency nurses and laid off nurses,[10] instead requiring the remaining nursing staff to work mandatory overtime or to assign more patients than can be cared for safely and therapeutically. For example, two HCA Healthcare hospitals in California sought staffing waivers to allow them to assign more patients to an RN than California law allows after one of the hospitals had summarily cut short traveler contracts and failed to book per diem staff who were available to work. Fortunately for nurses and patients alike, the state denied HCA's staffing waiver request and revoked another that was in place after hearing the experiences of NNU members working in HCA facilities.

The dangerous application of "just-in-time" models to health care.

"Just-in-time" supply chain management is a business model that attempts to have supplies arrive precisely when needed by (1) eliminating labor and other operating costs associated with putting things away in storage closets and warehouses and pulling them as needed, (2) freeing up the space used by the storage closet for other purposes, and (3) eliminating the need for warehouses which reduces real estate purchase or lease costs. Hospitals inappropriately apply this manufacturing industry model to health care, placing nurses and patients in danger.

HOSPITAL EMPLOYERS PUT NURSES IN DANGER OF INJURY AND ILLNESS ON THE JOB

Hospitals regularly fail to take preventive measures known to protect nurses from occupational hazards such as workplace violence,[11] back and other musculoskeletal injuries,[12] and infectious diseases, including Covid-19.[13] Working conditions have dramatically deteriorated during the pandemic as hospitals continue to fail to take protective measures that the science of industrial hygiene has long known can prevent workplace exposure to airborne viruses, such as SARS-CoV-2, the virus that causes Covid-19.[14]

Nurses face high rates of workplace violence and back injuries. According to the U.S. Bureau of Labor Statistics (BLS), in 2020, registered nurses in private industry in the United States experienced a rate of 18.2 nonfatal violence-related injuries per 10,000 full-time employees.[15] The violence-related injury rate for registered nurses is more than four and a half times higher than the violence-related injuries for workers overall in the same year.[16] Compared to pre-pandemic violence-related injury rates, the rate of workplace violence injuries for RNs in private industry has increased by 30 percent.[17] With respect to back injuries, RNs in the United States experienced a rate of 53.0 nonfatal musculoskeletal disorders and a rate of 30.1 nonfatal back injuries per 10,000 full-time employees in 2020. RN musculoskeletal disorder rates are nearly twice as high than the rate for workers overall, and RN back injuries are more than twice as high as the rate for workers overall.[18]

Further, when hospital employers intentionally adopt policies of understaffing, this places RNs at higher risk of occupational injuries and illnesses. When hospital employers treat nurses as expendable by failing to staff appropriately and providing key health and safety protections, this comes at a cost: Nurses are forced to leave the bedside workforce after experiencing preventable injuries or illnesses on the job. Several studies show that poor RN staffing levels led to higher rates of nurse occupational injury.

- An increased patient load per nurse was associated with significantly higher likelihood for neck, shoulder, and back musculoskeletal disorders.[19]
- The risk for workplace violence injuries was twice as high for lower-staffed hospitals as compared to higher-staffed hospitals.[20]
- Nurses from units with low staffing and poor organizational climates were twice as likely as nurses on well-staffed and better organized units to report risk factors for needlestick injuries and near misses.[21]

Finally, during the ongoing Covid-19 pandemic, RNs are more likely to be exposed to and infected with Covid-19 when they work under unsafe conditions without adequate personal protective equipment, isolation precautions, testing, contact tracing, and the full range of precautions, further sidelining them from caring for patients.

THE HOSPITAL INDUSTRY DEVALUES RNS' PROFESSIONAL PRACTICE AND RESTRICTS THEIR AUTONOMY

The hospital industry devalues RNs' professional practice and restricts their autonomy in myriad ways. Most notably, the industry focus on patient satisfaction scores and the routinization that breaks holistic nursing care into discrete tasks have been particularly troublesome for nurses. Both trends are driven by the industry goal of maximizing net revenue and restricts the autonomy nurses have to use their knowledge and experience to care for their patients.

In its preoccupation with patient satisfaction scores, the hospital industry typically focuses on managing patients' perception of their clinical care rather than on improving their clinical care, which ultimately degrades RNs' professional practice.[22] The Centers for Medicare and Medicaid Services (CMS) began requiring hospitals to report their patient satisfaction scores using the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey as mandated by the Deficit Reduction Act of 2005, though hospitals began surveying patients for marketing purposes prior to the CMS requirement. Reporting survey data was required to receive full Medicare reimbursement but was not affected by how the hospital scored on the surveys. In October 2012, CMS began calculating hospital incentive payments based in part on how the hospital scores on HCAHPS patient satisfaction surveys, as required by the Patient Protection and Affordable Care Act of 2010.

To improve patient satisfaction scores, and thus maximize CMS incentive payments, many hospitals have adopted rigid customer service practices such as scripting of nurse-patient interactions. Unfortunately, scripting comes at the expense of RN autonomy, their professional practice, and, in some cases, appropriate clinical treatment.[23] As the name suggests, scripting requires nurses to use specific language when talking to patients.[24] For example, the AIDET model for patient interactions, developed by management consultant the Studer Group, is used widely in the hospital industry. AIDET stands for "Acknowledge, Introduce, Duration, Explanation, Thank you."[25] Looking at some of the ways AIDET is implemented reveals both how rigidly controlled RN-patient interactions can be and how they are designed to manage patients' perceptions of their care. As part of the "Acknowledge" step, staff may be directed to "[f]ollow the 10 and 5 Rule: at 10 feet, look up and acknowledge, make eye contact, and smile; at five feet, verbally greet and offer assistance if necessary".[26] According to one description of the AIDET model: "Staff members trained in AIDET are encouraged to use the words 'excellent' and 'thank you' liberally."[27] For example, some scripts require nurses to ask: "Is there anything I can do to make your stay more excellent?" to prompt patients to rate the hospital as excellent on surveys.[28] As part of the Duration step, staff are encouraged to "[u]nder-promise and over-deliver" and told: "There are two types of time: real and perceived. Understand both."[29]

Nurses are stilted and inauthentic while using a script to interact with their patients. Scripting of nurse-patient interactions also leads to substantial dissatisfaction among nurses who are disrespected and devalued when their employer focuses on financial returns rather than sufficient staffing and resources. It also undermines the nurse-patient relationship, which is essential to optimizing health care outcomes, when patients are treated as "customers," rather than patients. These excerpts from RN letters responding to an article about patient satisfaction metrics capture this sentiment:

> **Instead of institutions spending money to hire consultants to teach nurses customer service, strategies need to be developed by the nursing leadership to get nurses back to the bedside and alleviate patient concerns that nurses aren't spending enough time with them. Nurses can best recognize and address these concerns when given the chance to develop meaningful relationships with their patients.**[30]

Organizations need to focus more on providing the resources, staffing, and education necessary to enhance patient outcomes. By ensuring that quality care is delivered, patient satisfaction initiatives will be successful.[31]

Additionally, most hospitals require RNs to follow instructions from algorithms embedded in electronic health records, often leaving nurses with little discretion to exercise their professional judgment even when it is in the best interest of their patient.[32] Rather than providing patient care, they spend much of their time entering information into these systems and then adjusting for the systems' failures to account for the complexity of the hospital environment.[33] The hospital industry's routinization of RN work, coupled with legislative and regulatory moves to weaken RN's scope of practice, enables employers to break apart nursing care, which is an inherently holistic practice, into discrete tasks that can be parceled out to unlicensed and lower-licensed staff, thus reducing labor costs. These hospital industry practices were taken directly from the manufacturing industry's practices of assembly lines and the deskilling of work. Whatever the merits or demerits of these practices in the manufacturing sector, they are unsuited to hospitals and the art and science of healing.

The routinization of RN work fragments patient care and endangers patients.[34] These hospital policies first decouple RNs' knowledge and clinical expertise from the holistic practice of directly assessing patient needs, implementing needed care, and regularly evaluating the patient's condition. Then, these practices allocate tasks to staff without sufficient education and clinical experience. Under these "team-based care" models, RNs spend less time at the bedside where they can get to know a particular patient's needs and use their professional judgment to ensure that the patient's needs are met. Instead, they spend more time on paperwork and monitoring the work of other staff, leaving RNs demoralized and alienated.[35]

THE HOSPITAL INDUSTRY'S RESISTANCE TO HIRING RNS WITH ASSOCIATE DEGREES IN NURSING EXACERBATES THE STAFFING CRISIS AND UNDERMINES RN WORKFORCE RACIAL AND ETHNIC DIVERSITY

Hospitals have increasingly adopted the arbitrary hiring practice of excluding nurses with associate degrees in nursing (ADNs) from consideration for open nursing positions, dramatically reducing the pool of potential nurses available to provide patient care. Hospitals more frequently require that RNs have a bachelor's degree of nursing and fail to hire RNs with ADNs regardless of how many years of experience they have providing bedside nursing care as an RN. Additionally, requiring RNs to have bachelor of science in nursing (BSN) degrees doubles the amount of education time required — from two years to four years — for a nurse to be licensed.[36]

A review of the RN education and examination requirements demonstrates that fulfilling licensure prerequisites should serve as the entry point to bedside nursing practice. RN licensure does not depend on whether a nurse has an ADN or BSN. Becoming an RN is a two-fold process: graduating from a nursing program approved by a state board of nursing and passing the National Council Licensure Examination (NCLEX). All RNs must fulfill both classroom science-based education requirements and hands-on clinical experience requirements. Both ADN and BSN programs have similar core curricula for in-class education, with differences between the two largely oriented around RN career paths such as teaching, research, health policy, and management in BSN programs and a greater focus on bedside patient care in ADN programs. Turning to clinical experience, ADN and BSN nursing programs also require a similar number of clinical hours.[37] Additionally, state boards of nursing that specified a minimum number of clinical hours for ADN and BSN degrees nearly always specified an identical

number of hours for both programs.[38] After meeting educational prerequisites to becoming an RN, the final licensure requirement for all U.S. nurses is to pass the NCLEX exam which "has been designed as a legally defensible, psychometrically sound examination to measure student readiness for entry-to-practice."[39] Of note, first-time passage rates of the NCLEX exam, a widely accepted outcome measure for nursing education, are similar for graduates of both ADN and BSN programs.[40]

Not only does requiring a BSN for employment as a bedside RN slow the RN education pipeline, the additional financial and time requirements for nursing students to obtain a BSN over an ADN also undermines racial, ethnic, and other socioeconomic diversity in the nursing workforce. Among the RN workforce, only non-Hispanic white, Native Hawaiian, and other Pacific Islander RNs meet or exceed their representation in the general U.S. population. Latinx and Black nurses are most underrepresented, with the gap between the percentage working as RNs compared to their percentage of the population at approximately 8.1 percent for Latinx RNs and 4.7 percent for Black RNs.[41] Additionally, a review of the RN graduates from 2015 to 2019 shows that more American Indian/Alaskan Native, Black, and Latinx RNs graduated with an ADN than a BSN, averaging respectively 1.64, 1.58, and 1.45 ADN graduates for every BSN graduate compared to white and Asian RNs respectively averaging 1.11 and 0.80 ADN graduates for every BSN graduate. Finally, requiring a BSN compared to an ADN for employment undermines nursing as an avenue of upward economic mobility for the working class, particularly women of color, as well as those with child or elder care responsibilities who may find it more difficult to meet the time or financial commitment required for a BSN.

PART II. HOSPITAL INDUSTRY PRACTICES DURING THE COVID-19 PANDEMIC CAUSED NURSES DETRIMENTAL MENTAL HEALTH EFFECTS, PROFOUND MORAL DISTRESS, AND MORAL INJURY

Nurses' working conditions have deteriorated further since the pandemic began. With the onset of the pandemic, the hospital industry compounded the issues discussed above by its flagrant refusal to protect nurses from exposure and infection from Covid-19, treating RNs as disposable. Nurses caring for Covid patients experience both high rates of infections and deaths and high rates of acute stress, anxiety, depression, and post-traumatic stress as well as moral distress and moral injury, causing them to leave the bedside at high rates.

THE FAILURE OF THE HOSPITAL INDUSTRY TO PREPARE FOR COVID-19 SURGES CAUSED HIGH RATES OF INFECTION, ILLNESS, AND DEATH IN NURSES

The Hospital Industry Failed to Prepare for Covid-19 Patient Surges

NNU sent its first letter to hospital management at all hospitals where the union represents nurses in January 2020, requesting information on their pandemic response plans and urging them to plan for predictable staffing needs, including hiring and training more nurses to work in critical care departments. We have continued to urge them to do so throughout the pandemic in words and deeds — including numerous worksite actions. NNU publicly sounded the alarm on hospitals' lack of preparation in late February 2020, identifying concerns with "optimal staffing, equipment, and supplies" as well as a widespread lack of planning for isolating patients with confirmed or suspected Covid-19 infections.[42] In March 2020, NNU filed more than 125 complaints with Occupational Safety and Health Administration (OSHA) in 16 states, charging hospitals with failing to provide safe workplaces as required by law. Once again, NNU focused on hospitals' failure to provide lifesaving PPE, but also addressed other health and safety issues such as failure to isolate patients who had, or may have had, a Covid-19 infection.[43]

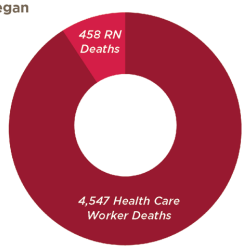
The hospital industry's "just-in-time" model that tightly manages inventory has been disastrous during the Covid-19 pandemic.[44] Although infectious disease surges are unpredictable, they are inevitable. Hospitals should have been better prepared, especially in the instance of Covid-19 because the initial outbreak in China in late 2019 should have rung alarm bells in U.S. hospitals and with federal and state governments. Yet because employers prioritized profits over preparedness, RNs were forced to choose between staying on the job and caring for their patients, who are also at risk of infection from nurses' lack of PPE,[45] or staying home to protect themselves and their families. For months into the pandemic,

What is moral distress and moral injury?

Moral distress arises when one knows the right thing to do, but institutional constraints and broader sociopolitical contexts make it nearly impossible to pursue the right course of action.[46]

Moral injury is the deleterious long-term, emotional, psychological, behavioral, spiritual, and/or social effects that may result from potentially morally injurious events, such as perpetrating or failing to prevent acts that transgress deeply held moral beliefs and expectations in a high-stakes environment.

Figure 1. **Known Covid-19 Deaths of RNs and Health Care Workers Since Pandemic Began**



very few nurses, even those working directly with confirmed Covid-19 patients, had access to appropriate PPE on an as-needed basis. Instead, nurses were forced to go without or to wear PPE manufactured for a single use for days on end. Some nurses were forced to use garbage bags when their employer ran out of surgical gowns.[47] Those who did have access to PPE in the pandemic's early stages generally had to fight for it. Although PPE was a key issue for nurses, it was far from the only issue. Employers also failed to screen and test patients for Covid-19,[48] to notify nurses of a Covid-19 exposure,[49] and to provide testing and sick leave while awaiting test results. This is not an exhaustive list of their failings.

The Hospital Industry's Failure to Prepare for Patient Surges Resulted in High Covid-19 RN Infection and Death Rates

Although this is certainly an undercount, as of Nov. 3, 2021, at least 1,037,183 health care workers in the United States have been infected with SARS-CoV-2, the virus that causes Covid-19, including thousands of nurses, and at least 4,547 health care workers have died from Covid-19 and related complications, including 458 RNs.[50]

There have been racial disparities in the impacts of Covid-19 on the RN workforce. Among RNs who have died from Covid-19 and whose race and ethnicity are known, 50.1 percent are white, 22.0 percent are Filipinx, 17.6 percent are Black, 7.6 percent are Latinx, 2.1 percent are other Asian (non-Filipinx), and 0.7 percent are Native American.[51] In sum, nurses of color comprise 49.9 percent of the nurse deaths[52] but only 24.1 percent of the RN workforce.[53] In addition, only 4.0 percent of the RN workforce are Filipinx[54] and only 12.4 percent are Black, thus these nurses are dying at far greater rates than their white colleagues.[55] In a report focusing on U.S. Filipinx health care workers, STAT news explains the increased risk of Filipinx health care workers compared to other health care workers as due to a higher likelihood of working in hospital settings treating Covid-19 patients rather than in other health care settings.[56]

Similarly, sociologist Adia Wingfield contends that Black nurses may be at higher risk based on their desire to give back to their communities and others in need as they are more likely to work in underfunded health care facilities serving communities where Covid-19 is ravaging Black, Latinx, low-income, and/or uninsured patients and lacking sufficient equipment and staff.[57] A study of frontline health care workers in the United States and the United Kingdom confirms the significant racial and ethnic disparities among RNs who die from Covid-19. This study found that Black, Asian, Latinx, and other health care workers of color contracted Covid-19 at nearly twice the rate of non-Hispanic, white health care workers.[58] It also found that non-white health care workers reported having to reuse PPE or having inadequate access to PPE at 1.5 times the rate of non-Hispanic white health care workers, even after adjusting for exposure to patients with Covid-19.[59] Additionally, the Office of the Inspector General for the U.S. Department of Health and Human Services, reporting on the hospital industry's response to the pandemic, confirmed that "widespread shortages of PPE put staff and patients at risk[.]"[60] Thus many, perhaps most, RN infections and deaths could have been prevented but for the utter failure of their employers to provide them appropriate personal protective equipment.

THE HOSPITAL INDUSTRY'S ACTIVE TRANSGRESSIONS AGAINST RNS COMPOUNDED ITS FAILURE TO PREPARE FOR THE PANDEMIC, ADDING INSULT TO INJURY

The hospital industry's widespread disregard for nurses' well-being throughout the course of the pandemic is undeniable. Moreover, the industry's misdeeds extend beyond mere negligence; it actively opposed measures that would protect nurses from exposure to Covid-19 or compensate them if they contract the virus.

The most egregious active transgression against RNs by the hospital industry is the failure to follow the precautionary principle and provide nurses with optimal respiratory protection. Rather than admitting the failure to prepare for the pandemic or advocating for government assistance to supply optimal levels of respiratory protection, the hospital industry shored up arguments for denying nurses respirators, claiming that respiratory protection was unnecessary except for specific surgical and aerosolizing procedures (e.g., intubation) and, at the beginning of the pandemic, denying outright that the virus was airborne, then shifting to downplaying the evidence for airborne transmission or claiming that the evidence was inconclusive as recently as March 11, 2021.[61] Yet since the pandemic began, numerous studies have demonstrated that the virus is airborne,[62] thus making respirators critical to preventing infections among health care workers.[63] Regardless, given any uncertainty about Covid-19's mode of transmission, employers should have adhered to the precautionary principle, which holds that we ought not wait until we know for certain that something is harmful before action is taken to protect people's health.[64] The hospital industry's active opposition to providing nurses with respiratory protection exemplifies a failure to recognize nurses' innate value as human beings.

Given any uncertainty about Covid-19's mode of transmission, employers should have adhered to the precautionary principle, which holds that we ought not wait until we know for certain that something is harmful before action is taken to protect people's health.

Hospital employers actively opposed nurses who pled with them and the government for PPE on the front lines of the pandemic. When RNs attempted to secure needed PPE by asking for donations on social media, speaking with the press, and holding public protests to expose their employers' failures, employers responded with disparagement and abuse. Some employers prohibited workers from speaking out[65] and fired workers for doing so.[66] Other employers went so far as to prohibit RNs from bringing in their own respirators[67] and even "yank[ed] masks off workers' faces[.]"[68] In cases where employers capitulated to nurses' collective demand for respirators, some continued to deny that respirators were necessary to protect nurses from Covid-19, asserting that they were providing respirators to make RNs feel more comfortable, not to prevent exposure to the virus. And even then, many employers forced nurses to reuse respirators with multiple patients, and often on multiple shifts, even though this practice is known to be unsafe and to contribute to the spread of infectious diseases.

In the legislative arena, the American Hospital Association (AHA), representing hospitals that employ a majority of RNs, vigorously opposed the inclusion of a requirement for OSHA to issue an emergency temporary infectious disease standard requiring respiratory protection in H.R. 6201, the Families First Coronavirus Response Act, and in H.R. 6800, the Health and Economic Recovery Omnibus Emergency Solutions Act.[69] Contrary to scientific consensus, the AHA denied the need for respirators as recently as March 11, 2021 in Congressional testimony:

> The CDC continues to hold that COVID-19 is primarily spread through close contact, not airborne transmission, except when doing certain aerosolizing procedures. ... For health care workers, CDC continues to recommend as appropriate the use of facemasks unless workers are performing aerosolizing procedures or procedures that require very close contact with patients with suspected or confirmed COVID-19 infection.[70]

As stated, the AHA relied on weak CDC guidance in its March 11 testimony — guidance that state hospital associations lobbied for. At the onset of the pandemic, the CDC called for precautions against airborne transmission of SARS-CoV-2. However, concurrently with the urging of California and Washington state hospital associations,[71] the CDC began downgrading its guidance from airborne to droplet precautions and removed the requirement to provide respirators to health care workers except for during aerosol-generating procedures. Finally, in May 2021, the CDC unambiguously acknowledged that Covid-19 is an airborne infectious disease and updated guidance on respirator use stating: "The supply and availability of NIOSH-approved respirators have increased significantly over the last several months. Health care facilities should not be using crisis capacity strategies at this time and should promptly resume conventional practices[.]"[72]

RNs advocated for more than a year and a half for OSHA to issue the Covid-19 Health Care Emergency Temporary Standard (Covid-19 Health Care ETS). OSHA issued the Covid-19 Health Care ETS in June 2021 despite opposition from the hospital industry.[73] This exceedingly important step by the federal government provided mechanisms for nurses to challenge their employers' continued refusal to recognize the science of Covid-19 and the need for the full range of precautions against aerosol transmission of the virus, including optimal respiratory protections. Since the issuance of the ETS, nurses have campaigned to ensure the hospital industry fully complies with ETS requirements, filing numerous OSHA complaints over failures to provide appropriate respiratory protection and other compliance issues. However, Arizona, Utah, and South Carolina failed to implement Covid-19 standards that are at least as effective as the federal Covid-19 Health Care ETS as they are required to do as state-run OSHA plans. NNU filed an official "Complaint About State Program Administration" against Arizona with federal OSHA, which is now considering taking over enforcement for these three noncompliant states.

NNU continues to vigorously advocate for nurses and their patients to protect them from the ramifications of the hospital industry's lack of preparedness for Covid-19 and their active resistance to implementing appropriate health and safety protections. Even with the OSHA ETS on Covid-19 for health care settings, many nurses continue to lack appropriate respiratory protection, according to NNU's latest survey covering June and July 2021.[74] More than 5,000 RNs from all 50 states, D.C., and Puerto Rico responded. Approximately 60 percent of RNs working in hospitals reported wearing a respirator each time they interacted with a Covid-positive patient, down from nearly 75 percent in our March 2021 survey. In addition, 62 percent reported using surgical masks, which are inadequate to protect health care workers caring for Covid-19 patients, when caring for patients suspected of having Covid-19, or patients awaiting test results.

Lastly, hospital employers opposed RNs' workers' compensation claims, taking calculated steps to insist that the thousands of nurses infected because of employers' reprehensible behavior did not contract the virus on the job. Through their own refusal to test nurses, other health care workers, and patients for Covid-19, employers manufactured a situation where nurses would almost certainly lack the direct evidence of workplace exposure needed to prove a workers' compensation claim. As nurses became sick, hospital employers went so far as to issue blanket statements that most nurses were infected in the community despite the much higher infection rates among nurses and the fact that many nurses remained isolated from family, friends, and the community at large out of fear they might spread Covid-19.[75]

UNSAFE WORKING CONDITIONS DURING THE PANDEMIC SEVERELY IMPACTED RN MENTAL HEALTH

Hospital employers' lack of planning and reprehensible behavior have also dramatically and detrimentally affected RN mental health. The intense internal conflict and dissonance nurses have been experiencing during the Covid-19 pandemic is driven by the tension between taking care of themselves or their families, on the one hand, and caring for their patients, on the other.[76] For some, the tension between sheltering in place with their families and their calling to care for their patients has led to traumatic stress, anxiety, and depression.[77] The lack of proper PPE, discussed above, played a fundamental role in this tension. Nurses fear contracting the virus themselves, particularly if their age or a medical condition make them more vulnerable to serious illness or death. In addition, motivated by love and concern, some worry about the effect that contracting Covid-19 would have on their children, spouses, and elderly family members who depend on them, especially if they succumbed to the illness.[78]

For many RNs, their greatest fear is carrying the disease home and infecting their families — especially if any of their family members is in a high-risk group for serious illness or death.[79] Nurses and other health care workers spoke out early in the pandemic about their fears for their families. For example, the *Washington Post* quoted a nurse from New York describing her experience and that of her coworkers:

> "There is a tremendous amount of fear and guilt that we could bring this home and hurt people that we love," said Jane Gerencser, a nurse who has been working 12-hour shifts tending to coronavirus patients at a Westchester Medical Center Health Network hospital in New York state. "We have had colleagues who lived with elderly parents, who unfortunately have gotten sick and have had their parents get sick and passed."[80]

News reports and journal articles describe the extreme measures that health care workers who, knowing that they were at high risk of Covid-19 infection, took to protect their families from being exposed. The *Washington Post* article cited above details "meticulous cleansing rituals" health care workers practice to protect family members from infection from virus on their persons or clothing.[81] An article from the *Journal of Medical Ethics* describes the "highly burdensome measures" one nurse took to protect her family: "stripping naked" and depositing her clothes in the washer, wiping down all the surfaces she's touched with disinfectant, showering, disinfecting more surfaces — all before greeting her family.[82] Even after taking these precautions, she maintained her distance by staying "6 feet away from everyone [she] love[s.]"[83] Some nurses avoided their families completely by using separate bathrooms; sleeping in spare rooms, attics, tents, or their cars; and eating their meals alone. Those who could afford it opted for hotel rooms or rented RVs.[84]

Regardless of whether they sleep at home, many nurses have been separated from their families for extended periods of time.[85] Talisa Hardin, a nurse working on a unit for persons under investigation for Covid-19, testified about her experience before the Select Subcommittee on the Coronavirus Crisis of the House Oversight Committee:

> For me, the lack of protections in my unit have forced me to send my daughter away to live with my mother during the course of the pandemic. I don't want to pass this virus on to my daughter or my mother. ... It has been more than five weeks since I last saw my daughter in person, and I don't know when I'll see her again. It has been deeply devastating for both of us to take these precautions. My daughter is so frustrated by the situation that she consistently asks me to come home and has recently asked me to quit my job. She follows the news, and she knows that I am at a heightened risk of contracting COVID-19 because my hospital is not giving me the protections I need. She is worried, she is scared, and she is experiencing separation anxiety.[86]

Many nurses sent their children away voluntarily to protect them.[87] Others were forced to give up custody of their children, at least temporarily, when noncustodial parents took them to court, fearing their children might become infected with Covid-19.[88]

Similarly, family members frequently experienced their own psychological distress and trauma related to the risks a nurse faces on the job, which in turn may exacerbate nurses' moral distress.[89] In a *New York Times* article titled "What Happens If You and Daddy Die," discussing the effects nurse exposure to the virus has on family members, the author notes that "[c]hildren of doctors and nurses have kept anguished journals, written parents goodbye letters and created detailed plans in case they never see their moms or dads again[.]"[90] Family members — especially children — may ask health care workers to leave their jobs.[91]

In some cases, nurses cannot meet the responsibilities to their families and also care for their patients. When nurses isolate to protect their families or work for weeks without a day off, others must assume the responsibilities they set aside, for example, assisting with childcare, homeschooling, meal preparation, and other household chores. This creates a hardship for both the nurses and their families at a time when the negative psychological impacts of the pandemic increased — particularly among health care workers but also in the general population.[92] More importantly, at a time when family members needed to draw comfort from one another due to the stress and anxiety of the pandemic, extended sheltering in place, and physical distancing, nurses' separation from their families deprived them of this comfort. Additionally, family members have the added worry about their loved ones working on the pandemic's front lines. Thus, entire families have made tremendous sacrifices, even if they have not lost a loved one to Covid-19.

Although conditions have improved for many nurses since the first year of the pandemic, patient surges continue to wax and wane across the country. The pandemic's widespread adverse mental health effects among nurses continue and may persist for years.

Common, interrelated themes in the mental health research among U.S. health care workers include fear of contracting Covid-19, fear of infecting family members, tension between caring for themselves and families versus going to work and taking care of patients, long hours and heavy workloads, lack of knowledge about the virus, and lack of treatment options.[93] A *JAMA Viewpoint* piece published in early April 2020 reported health care worker concerns based on semi-structured "listening sessions" with U.S. nurses, doctors, and other clinicians.[94] Their chief anxieties included access to appropriate PPE, exposure to Covid-19, infecting family members, and clinical knowledge in treating a novel virus along with several related concerns about meeting family responsibilities while working long hours treating patients. A study based on 657 completed surveys of health care workers treating Covid-19 patients in a New York City hospital at the height of its April 2020 surge, April 9 to April 24, quantifies the level of distress they experienced. (Table 1) RNs showed high levels of acute stress (64 percent), depression (53 percent), and anxiety (40 percent). In contrast, attending physicians had lower rates than RNs across the board: acute stress (40 percent), depression (38 percent), and anxiety (15 percent). In sum, RNs experienced much higher levels of distress than attending physicians in all three areas by significant margins: 24 percent, 15 percent, and 25 percent, respectively.

Table 1. **Top Sources of Distress Among All New York City Hospital Survey Respondents, April 2020**

Top sources of distress	Percentage of respondents
Infecting family members with Covid-19	74%
Lack of control in the clinical setting	70%
Lack of PPE and lack of Covid-19 testing	68%
Loneliness	65%

Finally, a study based on a small May 2021 survey of RNs and licensed practical nurses who cared for Covid-19 patients, based largely in the upper Midwest, found that 58.7 percent showed a risk of PTSD based on their score on the Trauma Screening Questionnaire.[95] This study did not link these scores to specific work- or home-related experiences.

NNU has been conducting surveys of RNs throughout the pandemic.[96] A survey of nurses during the period Oct. 16 to Nov. 9, 2020 with responses from across the United States (and some responses from U.S. territories) found that 70 percent of hospital RNs feared getting Covid-19 and 80 percent feared that they would infect a family member. (Table 2) Large majorities also reported experiencing higher levels of insomnia, anxiety, stress, and depression than they did before the pandemic.[97] The most recent survey of nurses covers the period June 1 to July 21, 2021 with responses from all 50 states, Washington, D.C., and Puerto Rico. (Table 3) Although their experiences show some improvement, the pandemic clearly continues to negatively affect the mental health of hospital RNs with 42 percent fearing they will contract Covid-19, 50 percent fearing they will infect a family member, and 34 feeling traumatized by their experiences caring for patients. In comparing their current mental state to prior to the pandemic, 35 percent are having more difficulty sleeping, 54 percent feel stressed more often, and 42 percent feel sad or depressed more often.

News reports, particularly during the earlier surges, demonstrate that U.S. health care workers are also experiencing stigmatization which may contribute to adverse mental health issues. The CDC identifies Asian Americans, Pacific Islanders, and Black Americans among those who may be subject to stigmatization and discrimination in the current pandemic.[98] Anti-Asian racism adds another layer of trauma, anxiety, and depression on nurses of Asian and Pacific Islander descent who are overrepresented in the U.S. health care workforce,[99] particularly Filipinx and Filipinx-American nurses.[100] Similarly for Black health care workers, the anti-Black racism and white supremacy espoused by President Trump, and rampant in communities around the country currently, compounds the already substantial detrimental mental health impact of providing patient care during the pandemic. Moreover, this comes on top of higher baseline levels of stress and emotional exhaustion Black health care workers may experience from defending their patients against racist attitudes and treatment from other health care workers.[101] Taken together, the cumulative effects are causing some Black health care workers to experience debilitating depression and trauma.[102]

Table 2. **Large Percentages of RNs Fear Contracting and Passing Covid-19**

Hospital RN responses	Percentage of respondents
Feared contracting Covid-19	70%
Feared they would infect a family member	80%

Table 3. **Indicators of Distressed Mental Health Condition Among Hospital RNs**

Hospital RN responses	Percentage of respondents
Feared contracting Covid-19	42%
Feared they would infect a family member	50%
Felt traumatized by experiences caring for patients	34%
Had more difficulty sleeping, compared to prior to the pandemic	35%
Felt stressed more often, compared to prior to the pandemic	54%
Felt sad or depressed more often, compared to prior to the pandemic	42%

CRISIS STANDARDS OF PATIENT CARE, RATIONING, AND UNNECESSARY DEATH CAUSED RNS EXTREME MORAL DISTRESS, INJURING THEM FURTHER

Widespread rationing and crisis standards of care have been in use across the country during patient surges. The negative impact this has on patient care was recently confirmed by a study in *Annals of Internal Medicine* covering the months of March to August 2020. The study found that 23.2 percent of Covid deaths during that time period were likely due to patient surges that stretched resources too thin, despite greater understanding of the Covid-19 disease process and improvements in treatment that should have decreased mortality rates.[103] An increase in the number of patients assigned per nurse was a major factor in the study's calculations of excess mortality.

RNs have experienced extreme moral distress from witnessing the unnecessary death caused by the lack of preparation for surges in Covid-19 cases by the hospital industry, the premature easing of mitigation measures such as masking and social distancing, and the elimination of shelter-in-place orders. Ethics professor Andrew Jameton introduced the concept of *moral distress* in 1984, stating: "*Moral distress* arises when one knows the right thing to do, but institutional constraints make it nearly impossible to pursue the right course of action."[104] He elaborated on this concept by breaking it down into three components: "(a) the psychological distress of (b) being in a situation in which one is constrained from acting (c) on what one knows to be right."[105] Drawing on the work of Varcoe et al., this report broadens part (b) of the definition to include "influences beyond those that would be considered institutional to broader socio-political contexts[.]"[106]

Large percentages of hospital RN respondents across multiple NNU surveys have reported worsening staffing conditions during the pandemic.[107] Burdened by a heavy patient load, nurses must witness the suffering and needless death of patients who might have been saved by appropriate nursing care or medical intervention. Thus, working under crisis standards of patient care leads to profound moral distress and moral injury as well as adverse mental health effects.[108] Crisis standards include rationing care — through insufficient numbers of RNs or staffing with RNs outside their scope of practice or areas of competency — and rationing resources such as PPE, ICU beds, ventilators, and medications.[109] The Hastings Center's "Ethical Framework for Health Care Institutions and Guidelines for Institutional Ethics Services Responding to the Coronavirus Pandemic" states:

> **In a public health emergency featuring severe respiratory illness, triage decisions may have to be made about level of care (ICU vs. medical ward); initiation of life-sustaining treatment (including CPR and ventilation support); withdrawal of life-sustaining treatment; and referral to palliative (comfort-focused) care if life-sustaining treatment will not be initiated or is withdrawn.**[110]

These decisions are driven by an insufficient number of RNs with ICU experience as well as shortages of beds, medications, equipment, and other medical resources which, in turn, are driven by the lack of pandemic planning, decades-long underfunding of public health, and a privatized, market-based health care system.

Under crisis standards of patient care, nurses face two challenges around staffing: being assigned far more patients than they can care for safely and working outside their areas of competency. Typically, staffing in an ICU requires one experienced ICU nurse to care for **no more than** two patients. It is well established that patient mortality decreases with higher RN-to-patient ratios.[111] Yet, with staffing for ICUs in short supply during pandemic surges, some hospitals are reassigning nurses who work in other areas of the hospital to the ICU. The Society of Critical Care Medicine has created a crisis ICU staffing model for hospital use that "encourages hospitals to adopt a tiered staffing strategy in pandemic situations such as COVID-19," using one experienced ICU nurse to oversee

three non-ICU nurses who each care for two patients. Thus, by proxy, the experienced ICU nurse is caring for six patients (two patients for each non-ICU nurse).[112]

This attempt to divide the labor between an experienced ICU RN who oversees non-ICU nurses who then carry out nursing "tasks" is untenable and dangerous. The knowledge needed to provide patient care cannot be divorced from the hands-on practice of providing the care — including directly assessing the patient's needs; determining, planning for, and implementing needed care; and subsequent evaluation. The experienced ICU nurse may experience moral distress because she knows that her patients are at increased risk of death because she has more patients than she can care for safely.[113] In contrast, the non-ICU nurse, lacking the necessary clinical knowledge and experience, may suffer moral distress out of fear of inadvertently harming a patient, thereby violating the most basic ethical principle of medicine and nursing: nonmaleficence (doing no harm).[114] In a first-person essay for the STAT news site, RN Jaclyn O'Halloran describes the effect this had on nurses in the Massachusetts hospital where she works: "We are assigned to work in unfamiliar units, with patients who are outside our expertise, without any training. We're lost."[115] She adds that many nurses "are scared they'll make a deadly mistake."[116] Research confirms the detrimental effect working under crisis standards of patient may have on nurses during the Covid-19 pandemic: "Nurses' and other professional grief may also be compounded by being unable to care for families and patients as they might wish. Burnout, moral distress and moral injury has been identified as a significant issue in critical care professionals[.]"[117]

Patient surges and crisis standards of patient care continue to be implemented nearly two years after the first case of Covid-19 was identified in the United States. As Covid-19 surges, the number of patients explodes, and nurses increasingly fall ill with the disease and sometimes die.[118] With these overwhelming experiences come moral distress, moral injury, and damaging effects on nurses' mental health. Although vaccines have eased deaths among RNs, too many are still experiencing avoidable infections, illness, and death because of their employers' failure to provide necessary safeguards.

HOSPITAL INDUSTRY TRANSGRESSIONS AND INCOMPREHENSIBLE PATIENT ILLNESS AND DEATH CAUSED RNS PROFOUND MORAL INJURY

In considering the effect the pandemic is having on RNs, it is helpful to view their experiences along a "continuum of morally relevant life experiences and corresponding responses" such that morally relevant life experiences progress from moral frustration to moral distress to moral injury corresponding to moral challenges, moral stressors, and morally injurious events, respectively.[119] Drawing on work by subject matter experts,[120] we use the following definition of *moral injury*: the deleterious long-term, emotional, psychological, behavioral, spiritual, and/or social effects that may result from potentially morally injurious events, such as perpetrating or failing to prevent acts that transgress deeply held moral beliefs and expectations in a high-stakes environment. The discussion in this section will demonstrate that many RNs have experienced profound moral injury during the pandemic.

Note that a person's role in a potentially morally injurious event will affect their emotional response. In unpacking the concept of moral injury, trauma experts Litz and Kerig explain that those who experience moral injury as a perpetrator of an immoral act or from failing to prevent an immoral act typically respond with internalizing emotions such as guilt and shame, whereas those who experience moral injury as a witness who was unable to prevent an immoral act typically respond with externalizing emotions such as anger and resentment.[121] It is crucial for those affected by potentially morally injurious events to ascribe the blame to the responsible party and not inappropriately take responsibility for failing to prevent a transgression if it was not within their power to do so. Although we have demonstrated that nurses are not the perpetrators of moral injury, they may internalize shame and guilt, nevertheless.

It is paramount that RNs learn to process these emotions and ascribe blame to the appropriate institutions and sociopolitical contexts — and then to fight together to change them.[122] It is the role of government to change this paradigm altogether so that neither patients nor nurses are put in this position again and that nurses are given the resources they need to fully heal from their effects.

Based on our definition of moral injury, hospital employers are guilty of "perpetrating or failing to prevent acts that transgress deeply held moral beliefs and expectations in a high-stakes environment." For example, hospital employers, often through trade associations such as the AHA, were active *perpetrators* in opposing an OSHA emergency temporary standard and *failing* to provide appropriate PPE, to test and isolate patients, or to notify workers of Covid exposures. They violated "deeply held moral beliefs and expectations" such as: human beings have innate value and should be protected from harm, people's health and lives should have priority over making a profit, and it is wrong to lie by commission or omission. Both nurses and patients have "expectations" that the hospital industry will meet moral, legal, and regulatory requirements to maintain a safe and healthy workplace that protects workers and patients. Finally, hospitals are clearly "high-stakes environments," particularly during the Covid-19 pandemic. As news reports document, too many workers and patients contracted Covid-19 in the hospital, some have died, while others have infected loved ones.[123]

Therefore, we can expect nurses to sustain moral injury at alarming rates. The risk factors identified by Williamson et al., as well as examples of how nurses may experience moral injury as a result are laid out in Table 4 below.[124] Williamson et al. are not alone in their concern about the impact of the Covid-19 pandemic on frontline health care workers. Numerous experts expect significant numbers of these workers to experience moral distress and, potentially, long-term moral injury.[125]

Table 4. **Moral Injury Risk Factors Experienced by Nurses**

Moral injury risk factors[126]	How RN experiences may embody these risk factors
Increased risk of moral injury if there is loss of life to a vulnerable person (e.g., child, woman, elderly)	» A child, vulnerable family member, or friend dies, particularly if infected by the nurse or if the person dies without the nurse being present. » A patient or coworker dies because a nurse wearing contaminated PPE infects them with Covid-19. » A vulnerable patient (e.g., a child or elderly person) under a nurse's care dies. This may be exacerbated if the patient dies alone or if the nurse is: › Working in an area outside of the nurse's competency due to Covid-19-related crisis staffing; or › Working under crisis standards of patient care in which insufficient staffing, medical equipment, or supplies are a proximate cause of the death.
Increased risk of moral injury if leaders are perceived to not take responsibility for the event(s) and are unsupportive of staff	» A nurse works without appropriate health and safety protections (e.g., insufficient PPE or poor patient isolation protocols) because: › Employer denies the need for airborne protections; or › Employer prioritizes profits over worker safety.
Increased risk of moral injury if staff feel unaware or unprepared for emotional/ psychological consequences of decisions	» A nurse working under crisis standards of patient care in which insufficient staffing, medical equipment, or supplies are a proximate cause of a patient's death. » A nurse caring for patients who are separated from their families because of visitor restrictions.
Increased risk of moral injury if the potentially morally injurious event (PMIE) occurs concurrently with exposure to other traumatic events (e.g., death of loved one)	» A nurse, family member, friend, or coworker develops a severe case of Covid-19. » A family member, coworker, or friend dies from Covid-19. » Racism, racial and police violence, or death in the society in which the nurse lives. » A nurse experiences stigma and discrimination.
Increased risk of moral injury if there is a lack of social support following the PMIE.	» A nurse is isolating from family and friends to avoid transmitting Covid-19. » An excessive workload keeps a nurse from accessing social support.

PART III. SOLUTIONS: NURSE RETENTION MEASURES

To ensure the ongoing retention of RNs in bedside care jobs, the federal government must adopt enforceable hospital standards on minimum safe RN-to-patient staffing ratios, strong union protections, and safe and healthy working conditions for nurses. There are several concrete legislative and regulatory measures that Congress and the executive branch must support to ensure that hospitals provide good nursing jobs with safe staffing and safe working conditions.

REQUIRE MINIMUM, NUMERICAL, SAFE RN-TO-PATIENT STAFFING RATIOS

CONGRESSIONAL ACTION »

Congress must pass the Nurse Staffing Standards for Hospital Patient Safety and Quality Care Act (S. 1567, H.R. 3165 in the 117th Congress), which would establish federally mandated safe RN-to-patient ratios limiting the number of patients a registered nurse can care for at one time in U.S. hospitals.[127]

EXECUTIVE AND REGULATORY ACTION »

The executive branch, through the Centers for Medicare and Medicaid Services (CMS), should require that hospitals meet minimum safe RN-to-patient ratios as a condition of participation in Medicare.

To support safe staffing at our hospitals, Congress and the executive branch must champion legislative and regulatory measures that would establish minimum, numerical RN-to-patient ratios in hospitals. Hospitals have no excuse for a staffing crisis they have created. The solution that hospitals can start implementing today is to immediately staff up every unit, on every shift, and create a safe, sustainable work environment where nurses are confident about their ability to provide the best nursing care possible for their patients.

California's success with implementation of its mandated minimum RN-to-patient staffing ratios law belies industry arguments that there are not enough RNs to comply with mandated RN-to-patient ratios. A study of RN patient loads after the implementation of the state's ratios law found that California hospitals were nearly always in compliance with the ratios just two years after the law's effective date and that California RNs had substantially safer patient loads than RNs in comparison states.[128] Additionally, studies have shown that minimum RN-to-patient staffing ratios mean better patient outcomes, safer and healthier RNs, lower rates of burnout (also called moral distress), and higher RN job satisfaction.

- A study linking staffing levels and mortality rates in medical-surgical units found that New Jersey hospitals would have had 13.9 percent fewer patient deaths and Pennsylvania 10.6 percent fewer deaths if they matched California's staffing ratios in medical-surgical units.[129]
- After implementation of California's RN staffing ratios law, there were significant increases in RN staffing levels in the state, particularly in hospitals with lower staffing pre-implementation, and RN full-time employment grew significantly faster than 15 comparison states (nearly 8 percent).[130]
- A 2015 study found that the California RN staffing ratios law was associated with a 31.6 percent reduction in occupational injuries and illnesses among RNs working in hospitals in California.[131]
- A survey of California nurses after the implementation of California's ratios law also found that California nurses reported significant improvements in working conditions and job satisfaction.[132]
- In a 2018 survey of more than 50,000 RNs, California RNs reported lower rates of "burnout" [researcher's terminology], a key factor in nurse retention. Among survey respondents who had left a job due to burnout, the most frequently cited the reasons for their burnout were "a stressful work environment [...] and inadequate staffing."[133]

Together, these and other studies demonstrate that the provision of safe and therapeutic patient care depends on RNs having safe patient workloads. In short, California's safe nurse staffing mandate positively impacts both patient care and the working environment for nurses, improving occupational safety for nurses, and increasing job satisfaction and nurse retention.

Importantly, mandated numerical RN-to-patient ratios should be the preferred government enforcement measure to achieving safe nurse staffing levels at hospitals. A recent study, published in October 2021, compared the impact of California's state law on mandatory numerical RN-to-patient staffing ratios to other state approaches on nurse staffing laws.[134] The study found that California's RN-to-patient ratios mandate resulted in a statistically significant increase in hospital RN staffing while two other approaches — state law requiring reporting of nurse staffing levels and state law requiring hospital staffing committees — had little or no impact on RN staffing levels. In short, mandatory minimum RN-to-patient ratios is the only approach that has been shown to have a positive effect on RN staffing levels.

Finally, as part of CMS' regulatory authority to establish health and safety standards for hospitals that participate in federal health programs, CMS should add minimum, numerical RN-to-patient ratios as part of its nurse staffing adequacy requirements in its Conditions of Participation (CoPs) agreements with Medicare- and Medicaid-certified providers. Medicare-participating hospitals include nearly all hospitals in the United States and must meet CoPs regarding patient health and safety standards as required under § 1891(e) of the Social Security Act, 42 U.S.C. § 1395x. Current hospital CoPs require that nursing service have "adequate numbers of licensed registered nurses, licensed practical (vocational) nurses, and other personnel to provide nursing care to all patients as needed" and that "[t]here must be supervisory and staff personnel for each department or nursing unit to ensure, when needed, the immediate availability of a registered nurse for bedside care of any patient."[135] Additionally, CMS hospital certification procedures for evaluating whether hospitals meet CoPs on nurse staffing adequacy currently include a determination of adequate numbers of nurses based on the number of patients.[136] Nonetheless, the "adequacy" requirement in hospital CoPs includes so little specificity as to be almost meaningless. Moreover, CMS relies on the hospital-funded, non-governmental organization The Joint Commission to conduct Medicare and Medicaid accreditation surveys. Consequently, The Joint Commission, which has a clear conflict of interest, is an inappropriate hospital watchdog for CMS.[137]

Updating CoPs to include detailed standards for Medicare- and Medicaid-certified hospitals is not new to CMS. Indeed, CMS exercised such regulatory authority in November 2021 when it issued regulations to add Covid-19 health care staff vaccination requirements for the vast majority of Medicare- and Medicaid-certified providers.[138] (Although as of the publication of this report federal district courts have blocked enforcement of the CMS rule on Covid-19 vaccination of health care staff pending appeal, CMS has long-included nurse staffing requirements in hospital CoPs.) CMS has the authority to mandate numerical RN-to-patient staffing ratios for hospitals through Medicare- and Medicaid-certified hospital provider CoPs on nurse staffing adequacy, and CMS has recent precedent in establishing such detailed standards in CoPs. Thus, NNU urges CMS to amend hospital CoP regulations to include mandated, minimum numerical RN-to-patient staffing ratios for hospitals.

ISSUE ENFORCEABLE OCCUPATIONAL HEALTH AND SAFETY STANDARDS TO ENSURE THAT NURSES ARE SAFE ON THE JOB

CONGRESSIONAL ACTION »
Congress must pass legislation requiring that OSHA issue workplace health and safety standards to protect nurses from preventable injury and illness on the job and increasing funding for OSHA enforcement programs, including:

- *Passing the Workplace Violence Prevention for Health Care and Social Service Workers Act (H.R. 1195 in the 117th Congress)*
- *Increasing funding for OSHA enforcement programs and OSHA hiring of health care-sector inspectors*

EXECUTIVE AND REGULATORY ACTION »
The executive branch, through OSHA, must issue enforceable workplace health and safety standards to protect nurses from injury and illness on the job, including:

Issuing a permanent OSHA standard on Covid-19. *A permanent standard on Covid-19, based on the Covid-19 Health Care Emergency Temporary Standard, that follows the precautionary principle and includes requirements on optimal PPE and other precautionary protocols necessary to prevent aerosol transmission of Covid-19.*

- *Issuing an OSHA standard on infectious disease. An infectious disease standard that includes protections against aerosol-transmissible diseases.*
- *Issuing an OSHA standard on workplace violence prevention in health care and social service settings. A workplace violence prevention standard.*[139]
- *Issuing an OSHA standard on safe patient handling. A standard on safe patient handling to prevent back and other musculoskeletal injuries.*
- *Issuing an OSHA directive to improve enforcement activities in the health care sector.*
- *Hiring and training more OSHA inspectors with health care sector expertise.*

Nurses and other health care workers experience **preventable** workplace injury and illnesses, which can result in nurses taking time off to recover or leaving the profession altogether because of temporary disability or illness, permanent disability, or even death. The Occupational Safety and Health Administration must issue permanent enforceable standards on Covid-19, infectious disease, workplace violence prevention, musculoskeletal injury, and other workplace hazards. These occupational health and safety standards would provide nurses and other health care workers with enforceable tools to ensure hospitals are protecting them from workplace hazards.

In the absence of enforceable workplace health and safety standards from OSHA, employers have failed to adequately protect nurses and other health care workers from Covid-19, other infectious disease, workplace violence, back injuries, and other occupational hazards in health care settings. Employers have legal obligations under the Occupational Safety and Health Act (OSH Act) to provide workers safe and healthful workplaces and Congress tasked OSHA with ensuring "so far as possible every working man and woman in the Nation safe and healthful working conditions and to preserve our human resources..." including by passing mandatory standards.[140]

Importantly, where serious occupational hazards persist despite voluntary measures, OSHA is **required** under the OSH Act to establish mandatory workplace health and safety standards. Congress envisioned in the passage of the OSH Act that all workplace safety standards promulgated by OSHA be highly protective. It recognized that OSHA's leadership would be necessary in creating uniform standards across the nation, requiring, where conflicts existed among occupational standards, that "the Secretary [of Labor] promulgate the standard which assures the

greatest protection of the safety or health of the affected employees."[141]

The Covid-19 pandemic is far from over and OSHA should act to make the Covid-19 Health Care Emergency Temporary Standard (Covid-19 Health Care ETS) permanent.[142] NNU has urged OSHA to move expediently to promulgate a final standard on Covid-19 in health care and to update and to reissue the Covid-19 Health Care ETS until such time as a final standard can be issued.[143] Variants of concern continue to emerge and spread around the world. Only 24 percent of the world population and just 1.3 percent of people in low-income countries are fully vaccinated for Covid-19, and governments around the world failed to establish comprehensive public health programs to track, trace, and isolate Covid-19 cases.[144]

As explained in NNU's letter to the U.S. Secretary of Labor and Assistant Secretary of Labor for OSHA, the Covid-19 Health Care ETS has supported nurses and other health care workers in holding their employers accountable to protect them and their patients from Covid-19.[145] Through collectively organizing and communicating directly with their employers regarding the requirements of the Covid-19 Health Care ETS, union nurses have won improvements to Covid-related health and safety hazards in their facilities, including gaining access to the employer's written Covid-19 policies and procedures and Covid-19 logs, getting nurses on Covid-19 units fit-tested for N95 filtering facepiece respirators for the first time, and returning all PPE to patient care units instead of locking up and rationing this equipment. In order to provide protections to nurses and other health care workers in an ongoing manner, OSHA should issue a permanent Covid-19 standard for health care settings, based on the Covid-19 Health Care ETS.

Additionally, OSHA enforcement efforts must be dramatically scaled up and enhanced to ensure that standards, once issued, can be effectively enforced in both this administration as well as future administrations. While recognizing that the Biden administration has dramatically scaled up OSHA's enforcement program since taking office in January 2021, Congress must increase funding to hire more OSHA inspectors and to improve OSHA enforcement efforts, and the executive branch should issue a directive to improve enforcement activities in the health care sector where OSHA enforcement historically has been lacking, including through inspector training and programs to hire inspectors with particular experience in health care settings. During the Trump administration, OSHA opened inspections for a slim fraction of complaints filed during the pandemic. As of Jan. 20, 2021, federal OSHA had received 12,831 complaints from workers since the beginning of the pandemic and reported opening a mere 357 inspections in response to complaints (2.8 percent). Under the Biden administration, inspections in response to complaints have risen dramatically, nearly five-fold to 13 percent.[146]

STRENGTHEN UNION PROTECTIONS AND THE RIGHT TO ORGANIZE FOR NURSES AND OTHER WORKERS

CONGRESSIONAL ACTION »

Congress must pass legislation to strengthen the collective bargaining rights of nurses and their rights to collectively organize a union and to engage in protected concerted activity to improve their working conditions, including:

- *Passing the Protecting the Right to Organize (PRO) Act (S. 420, H.R. 842 in the 117th Congress).*
- *Passing the VA Employee Fairness Act (S. 771, H.R. 1948 in the 117th Congress).*

EXECUTIVE AND REGULATORY ACTION »

The executive branch, through executive order and through regulatory action, must take steps to strengthen and protect the rights of nurses to collectively organize a union and to engage in protected concerted activity to improve their working conditions, including by:

- *Adopting CMS rules to penalize hospitals that cannot ensure labor peace. The Centers for Medicare and Medicaid Services (CMS) should adopt regulations to subject hospital employers that cannot demonstrate that they can ensure labor peace with a 1 percent Medicare payment reduction penalty each year.*
- *Supporting the PRO Act and VA Employee Fairness Act. The executive branch should provide its full support for the PRO Act and the VA Employee Fairness Act.*

Union advocacy and representation allow RNs to focus on caring for patients. The benefits of unionization for nurses have never been clearer than during the Covid-19 pandemic. Since the pandemic began, unionized nurses have been able win access to PPE and other worker and patient protections through their union, while nurses in non-union hospitals have found it more challenging to secure the protections they need. Yet current labor law does far too little to protect and allow workers to exercise our right to join a union. To promote retention of nurses at the bedside and on the front lines of the Covid-19 pandemic, Congress must pass the Protecting the Right to Organize (PRO) Act, which would enhance workers' rights to organize a union and act together to advocate for safe working conditions, to improve their wages and benefits, and to protect their workplace rights through collective bargaining and concerted activity.[147] The PRO Act would ensure that nurses can fully exercise their right to act collectively through their union and have a voice on the job to ensure safe working conditions that prevent death, illness, and injury for themselves, their coworkers, and their patients. The PRO Act is an important step to protecting workers' rights to organize a union and to stop employers' attacks so that every worker can organize without fear of retaliation.

Moreover, certain clinical professionals, including registered nurses, who work at the U.S. Department of Veterans Affairs (VA) caring for veterans have limited collective bargaining under Section 7422 of Title 38 of the U.S. Code. This statute restricts the ability of RNs at the VA to speak out about poor working conditions and patient care issues and to resolve disputes with management. As a result, the quality of patient care can deteriorate and problems in VA facilities can go unaddressed. These statutory limitations to VA nurses' rights to organize must be amended to give VA nurses and other clinicians full collective-bargaining rights, ultimately improving both working conditions for nurses and improving patient care in VA hospitals. The 2021 fiscal year report by the VA Office of the Inspector General found that 73 percent of facilities surveyed had a severe shortage of nurses and that a severe shortage of nurses has been identified every year since 2014.[148] Thus, it is crucial to rectify this matter swiftly and ensure VA nurses have full collective bargaining rights.

Finally, the executive branch, through CMS, must take regulatory action to support unionization of nurses and other hospital workers, which not only would strengthen nurses' ability

to advocate for better working conditions but also, as shown through research literature, improve patient outcomes.[149] Hospital employers are the beneficiaries of federal government health care dollars through Medicare and Medicaid and should be required to show they respect workers' organizing rights.[150] Despite the hospital industry's reliance on federal health care dollars for its continued existence,[151] the hospital industry engages in the same kind of union-busting efforts as employers in any other industry, subjecting workers to relentless pressure, fear, and intimidation and spending millions upon millions of dollars in the process — federal health care dollars that should be going to safe patient staffing and care. Thus, to ensure bedside nurses' rights to join together in advocating for safe and healthy working conditions, CMS could impose a 1 percent Medicare payment reduction penalty per year if a hospital engages in conduct deleterious to labor peace, capping penalties at 3 percent, as with other CMS programs that reduce hospital payments for failing to meet certain Medicare standards.

PROVIDE PAID SICK, FAMILY, AND PRECAUTIONARY LEAVE FOR WORKERS

CONGRESSIONAL ACTION »
Congress must pass legislation mandating paid sick, family, and precautionary leave for nurses and other workers.

EXECUTIVE AND REGULATORY ACTION »
The Biden administration, through executive order and through regulatory action, should ensure that all federal workers and federal contractors are entitled to paid sick and family leave beyond the Covid-19 public health emergency.

Paid sick, family, and precautionary leave are essential for nurses' and all workers' ability to stay healthy, take care of their families, and avoid spreading infectious diseases in the workplace. The absence of these critical supports for workers has undermined public health efforts during the Covid-19 pandemic and damages workers' health even outside of pandemic conditions.

The importance of paid sick and family leave has become indisputable during the Covid-19 pandemic and so has the need for paid precautionary leave to quarantine and isolate at home. Paid time covering isolation after every work-related exposure is essential to combating this pandemic. However, federal Covid-19 legislation that Congress passed in 2020 explicitly excluded nurses and other health care workers from mandatory workplace benefits for emergency paid sick and family leave. Congress and the executive branch should ensure that any further legislation on paid sick, family, or precautionary leave includes health care workers. For nurses who are exposed to Covid-19 because of inadequate workplace health and safety protections, their ability to isolate without fear of losing their incomes or their jobs is critical to the safety of their families, patients, communities, and coworkers. No worker should have to use their accrued sick or other paid leave to cover a workplace exposure that occurred because their employer failed to protect them. No nurse should ever have to choose between their livelihood and the risk of further spreading Covid-19 or other infectious diseases.

Beyond the Covid-19 pandemic, paid sick and family leave are essential to allow workers to recover from illnesses or injuries, prevent the spread of diseases, and care for new children and ill family members while remaining in the workforce. While most union nurses have paid leave guaranteed in their collective bargaining agreements, many workers — including non-union nurses — lack sufficient paid sick and family leave to cover illnesses and injuries that they and their family members may suffer. The Bureau of Labor Statistics (BLS) March 2021 employee benefits survey reported that only 35 percent of RNs in the civilian workforce overall have paid family leave.[152] Additionally, although RNs have high rates of reported access to some form of paid sick leave (93 percent), only 25 percent of RNs have access to paid sick leave with no consolidation of their leave plan with other forms of time off such as vacation or personal leave.[153]

Congress and the executive branch should take steps to guarantee paid leave to all workers. NNU urges Congress to pass legislation requiring paid sick days and paid Family Medical Leave Act (FMLA) leave for all workers and to make any additional appropriations necessary to fund paid FMLA leave for federal workers, extending eligibility for paid FMLA leave permanently beyond the Covid-19 pandemic emergency. The executive branch should build on President Obama's executive order requiring up to seven days of paid leave for federal contractors.[154] The administration must issue similar executive orders requiring paid sick and FMLA leave for federal workers and contractors on a permanent basis, and the Office of Personnel Management and the Office of Federal Contract Compliance Programs must issue rules requiring paid sick and FMLA leave, respectively, for federal employees and for federal contractors.

ADOPT PANDEMIC RISK AND EFFECTS MITIGATION MEASURES TO RESPOND TO THE ONGOING COVID-19 PANDEMIC AND TO PREPARE FOR FUTURE PANDEMICS

CONGRESSIONAL ACTION »

In addition to the other measures listed in this report, NNU urges Congress to pass legislation on workplace protections that we describe in "Deadly Shame: Redressing the Devaluation of Registered Nurse Labor Through Pandemic Equity."[155]

Pandemic Risk Mitigation Measures:

- *Pass legislation requiring hospitals and government to maintain and report on PPE and medical supply stockpiles*
- *Pass legislation expanding Defense Production Act of 1950 powers over PPE and medical supply chains during public health emergencies*
- *Pass legislation prohibiting the reuse and extended use of single-use PPE*

Pandemic Effects Mitigation Measures:

- *Pass legislation to establish presumptive eligibility for workers' compensation and disability and death benefits for nurses*
- *Pass legislation providing free crisis counselling and mental health services to nurses*
- *Pass legislation on educational debt cancellation for nurses*
- *Pass legislation establishing social support programs for nurses during public health emergencies (e.g., programs providing free childcare, alternate housing, meals, and transportation)*
- *Pass legislation to provide nurses essential worker pay*

EXECUTIVE AND REGULATORY ACTION »

In addition to the other measures listed in this report, NNU urges the executive branch to implement other regulatory policies on workplace protections for nurses that we describe in "Deadly Shame: Redressing the Devaluation of Registered Nurse Labor Through Pandemic Equity."[156]

Pandemic Risk Mitigation Measures:

- *Require hospitals and government to maintain and report on PPE and medical supply stockpiles through CMS regulation*
- *Fully invoke and exercise Defense Production Act of 1950 powers to coordinate the manufacture and distribution of PPE and medical supplies*
- *Rescind all CDC and other federal agency crisis standards that allow the reuse and extended use of single-use PPE and that do not fully recognize aerosol transmission of Covid-19*
- *Require hospitals to adopt Covid-19 infectious disease precautions, including:*
  - *Patient isolation, screening, universal masking, and other measures*
  - *Free vaccines and testing of workers and patients*
  - *Contact tracing and communication about Covid-19 cases*

Pandemic Effects Mitigation Measures:

- *Establish presumptive eligibility for disability and death benefits for nurses and workers' compensation for federally employed nurses*
- *Require hospitals to provide free crisis counseling and mental health services of the nurse's choosing*
- *Take executive action on nurse educational debt cancellation*
- *Provide essential worker pay for nurses who are federal employees or contractors*

Congress and the executive branch must take the measures listed above to ensure that hospitals are able to retain nurses by providing nurses good, permanent jobs with safe working conditions and strong enforceable workplace protections. As NNU describes in our white paper "Deadly Shame: Redressing the Devaluation of Nurse Labor Through Pandemic Equity," there are protective measures that the federal government could adopt and enforce immediately to start mitigating this unequal risk of contracting and transmitting Covid-19 borne by our nurses and their families during the Covid-19 pandemic. These pandemic mitigation policies can be conceptualized into two broad categories — risk mitigation and effects mitigation. Risk mitigation measures are policies that reduce the risk of exposure to Covid-19 and other infectious disease borne by our nurses, other health care workers, and their families. Risk mitigation measures protect workers from exposure in the first place. In contrast, effects mitigation measures are policies that government can implement to redress the impact of nurses' exposure to or contraction of Covid-19 or other infectious disease. These measures support nurses and their families who are exposed to or contract Covid-19. This framework reflects the fact that valuing and protecting the lives of nurses and other health care workers during this pandemic requires a range of interventions.

Importantly, risk mitigation measures and effects mitigation measures should never be treated as substitutes for one another. Remedying the impact of Covid-19 exposure through additional pay or other compensation and benefits does not excuse an employer or the government from their legal and moral obligations to provide safe workplaces for nurses and other essential workers. Measures that may remedy the physical, mental, financial, or other effects of forced occupational exposure to Covid-19 must not be treated as trade-offs for measures that would prevent workplace exposure at the outset and would protect the lives and health of nurses, patients, and their families and communities. These effects mitigation measures do not excuse government from its legal and moral obligation to establish and enforce worker protection laws. This is particularly true when infectious disease science has long demonstrated that the risk of occupational exposure to aerosolized diseases, like Covid-19, can be reduced significantly.

Pandemic Risk Mitigation Measures

Adopting Optimal PPE and Other Medical Supply Chain Measures. Throughout the pandemic, many nurses across the country have not had the necessary PPE to provide care to their patients safely. This failure to ensure that PPE stock and supply is immediately accessible at each facility leaves nurses exposed to Covid-19, which has had deadly consequences for nurses, their patients, and their families. Hospital employers' rationing of PPE and other medical supplies left nurses unprotected from Covid-19 and other infectious disease, pushing nurses away from the bedside due to unnecessary exposure and preventable illness and death.

- **Require Employer and Government Maintenance of PPE and Medical Supply Stockpiles:** To ensure that nurses are never again left unprotected while caring for patients, hospitals and government must always be prepared for potential public health emergencies by maintaining stockpiles of PPE and medical supplies. Congress and the executive branch must end "just-in-time" supply practices for PPE and medical supplies by requiring hospitals and government at all levels to maintain PPE and medical supplies stockpiles.
- **Fully Exercise Defense Protection Act of 1950 Powers:** The DPA must be fully invoked on day one of public health emergencies to dramatically ramp up production and distribution of medical equipment and PPE in needed quantities to consistently provide optimal protections against Covid-19 or other infectious disease exposures of nurses and other health care workers. The executive branch must use DPA authorities to create a comprehensive medical supply chain management system that is coordinated, efficient, and transparent. The DPA can be used to engage in identification of manufacturing facilities that can increase

their capabilities or can transition manufacturing functions to produce critical medical supplies and PPE.

» **Rescind all CDC and other federal agency crisis standards that allow the reuse and extended use of single-use PPE and that do not fully recognize aerosol transmission of Covid-19:** Federal guidance and hospital policies during the pandemic have not fully recognized aerosol transmission of Covid-19 or, through crisis standards, allowed for the use of non-protective equipment, the reuse of single-use PPE, and for the extended use of single-use PPE. CDC guidance has allowed hospitals to adopt crisis standards that reuse or extend the use of single-use PPE. Every time that single-use PPE is reused, nurses and patients are put at increased risk of exposure. Congress must pass legislation and federal agencies must issue regulations prohibiting hospitals from the reuse or extended use of single-use PPE. These measures could be enforced through OSHA standards, CMS regulation of Medicare- and Medicaid-certified providers, or FDA PPE and medical product use and certification standards.

Covid-19 and Other Infectious Disease Control Precautions (Patient Isolation, Testing, Screening, Universal Masking, Contact Tracing, Ventilation, and Additional Measures). NNU advocates for a comprehensive infection control public health program that practices multiple measures of infection control. As outlined in NNU's scientific brief on Covid-19 infection control measures, research literature has shown that multiple measures in a layered approach are necessary to stop and slow the spread of Covid-19.[157] Patient isolation, testing, screening, masking, contact tracing, ventilation and air filtration, vaccines, and other measures would reduce nurses' exposure to Covid-19. Preventing nurses' exposure to Covid-19 in the first place would ensure that nurses are not pulled away from the bedside because of entirely preventable workplace exposure to and infection, illness, or death from Covid-19. To protect nurses from exposure to Covid-19, hospitals should be required to screen all patients — irrespective of vaccination status — using a combination of testing, symptom screening, and epidemiologic history. NNU urges that Congress and the executive branch require hospitals have designated Covid-19 units and isolate Covid-19 patients in airborne infection isolation rooms (AIIRs), which reduce the possibility that infectious viral particles will be transported to other areas of the hospital. These kinds of measures to prevent patient or visitor transmission of Covid-19 to nurses can be adopted in future pandemics. Legislative and regulatory measures must be taken to authorize and mandate that OSHA or CMS require that hospitals implement such measures during this and future pandemics.

Pandemic Effects Mitigation Measures

Establish Presumptive Eligibility for Workers' Compensation Claims and Disability and Death Benefits for Nurses. Congress and the executive branch should establish programs that would presumptively compensate nurses who are injured on the job or who contract illnesses (including Covid-19) with workers' compensation, disability, and death benefits. These kinds of benefits would mitigate the high risk of injury or illness that nurses face on the job. Presumptive eligibility for such benefits programs would mean that nurses would not bear the legal and evidentiary burden of proving that they were injured on the job or became ill as result of workplace exposures to infectious disease such as Covid-19 or other hazardous materials. NNU urges that Congress and the executive branch establish and enforce programs that provide nurses with presumptive eligibility for workers' compensation claims as well as for short-term disability, long-term disability, and death benefits for issues such as infectious and respiratory disease (including Covid-19), cancer, post-traumatic stress disorder, and musculoskeletal injuries.

For nurses, relief from the burden of proving that an injury or illness was work-related is exceedingly important in the context of the current pandemic. As a matter of public policy, it would recognize that by virtue of being deemed essential during the pandemic, nurses have an undue risk of exposure to Covid-19. Workers' compensation for nurses should include not only payment for medical care but

also for time off during any necessary quarantine and medical treatments, payment for temporary housing if needed to prevent exposure to household members, and necessary PPE.

Importantly, disability and death benefit presumptions as well as state-based workers' compensation presumptions already exist for certain male-dominated professions such as EMTs, paramedics, firefighters, and police officers. Although states manage workers' compensation laws for private sector and state public employees, Congress also has established programs that provide public safety officers with presumptive death and disability benefits for certain injuries and illnesses. In 2020, Congress passed legislation which extended existing federal programs providing public safety officers presumptive death and disability benefits to Covid-19-related claims. Meanwhile, workers in health care settings, such as nurses, are not entitled to workers' compensation presumptions and do not have federal programs that provide disability or death benefits. This is despite the fact that nurses treat the same patients in hospitals that public safety officers are treating in the field. Congress and the executive branch must establish and provide similar workers' compensation, disability, and death benefits programs presumptively for nurses. Additionally, the executive branch must provide nurses employed by the Veterans Health Administration, other federal agencies, or federal contractors with presumptive workers' compensation for Covid-19 as well as other infectious diseases and injuries.

Provide Free Crisis Counseling and Mental Health Services for Nurses. Considering the psychological trauma, moral distress, and moral injury that nurses are facing on the front lines of the pandemic, Congress and the executive branch should ensure that employers provide nurses with crisis counseling and mental health services. Congress and the executive branch must also supplement and, in some cases, directly provide crisis counseling and mental health services to nurses. Given that much of the psychological trauma and moral distress is attributable, at least in part, to the actions and inactions of health care industry employers to protect nurses and their patients, it is exceedingly important that any crisis counseling or mental health services are provided by entities other than the nurses' employer. Employee assistance programs and employer-sponsored wellness programs are not sufficient and, indeed, may contribute to stress and psychological trauma if the very entity that causes stress and trauma is the only option for nurses to receive free counseling or mental health services.

Cancel Educational Debt for Nurses. Nurses who work at the bedside providing direct patient care to members of their community put themselves at risk of exposure to infectious disease, including deadly viruses such as SARS-CoV-2. For the risk that nurses bear to illness, injury, and death from their work at the bedside and for their services to their patients and communities, Congress and the executive branch should take legislative and regulatory steps to cancel any educational debt of nurses. In the Higher Education Act (HEA), Congress has granted the U.S. Secretary of Education authority to modify student loan debt owed under federal student loan programs. Congress conferred upon the education secretary general authority to "enforce, pay, compromise, waive, or release any right, title, claim, lien, or demand, however acquired, including any equity or any right of redemption."[158] A reasonable interpretation of the statute provides the executive branch's education secretary with the authority necessary to cancel federal educational loan debt for nurses. No nurse who has risked their own and their families' health and safety due to hospital employer and government failures to protect them from preventable injury and illness, including during the Covid-19 pandemic, should continue to be burdened with educational debt.

Establish Government Programs On Free Childcare, Alternate Housing, Meals, and Transportation. To help nurses prevent the spread of infectious disease during public health emergencies to their families and communities, Congress and the executive branch must also establish federal programs to provide nurses and other essential workers with free childcare, alternate housing, meals, and transportation. It has been widely documented

that nurses and other health care workers with vulnerable family members or children paid for their own hotel rooms or other accommodations to protect their family members.[159]

Provide Essential Worker Pay for Nurses. While nurses always deserve fair and equitable wages, an essential worker pay differential is specifically meant to compensate workers who have been excluded from governmental orders and public health guidance to stay at home because their work has been deemed "essential" or "critical" and, thus, are being forced to risk exposure to Covid-19 that is higher than government has prescribed as safe. More simply put, because the labor of nurses and other essential workers is vital to our collective well-being, coupled with the fact that working during a pandemic adds complexity and danger for them and their families compared to those sheltering at home, these workers deserve to be paid more.

Sometimes the term "hazard pay" is mistakenly used to describe this kind of mitigation measure, but using this term to describe an essential worker pay differential or premium is a misnomer. Hazard pay, by regulatory definition of the U.S. Department of Labor, is meant to compensate a worker from exposure to a hazard that cannot be mitigated.[160] But the science of industrial hygiene has known for decades how to protect workers from infectious disease and other occupational injury in health care settings, and, as such, we know how to reduce occupational exposure to Covid-19, other infectious disease, and workplace hazards for nurses. Extra pay to nurses as essential workers should not be treated as trade-off for safe workplaces, especially when we know the risk of exposure can be reduced.

Congress or the executive branch must provide essential worker pay to nurses who are federal workers or federal contractors. The executive branch must issue executive orders requiring essential worker pay for federal employees and federal contractors, and Congress must extend current statute providing pay premiums for some federal workers who are exposed to virulent biologicals to all nurses who work for the federal government or federal contractors.

Certain federal workers are entitled to a pay premium of up to 25 percent for work duty "involving unusual physical hardship or hazard."[161] This kind of pay differential is available if a federal worker is exposed to or must "work with or in close proximity" to "virulent biologicals[.]"[162] However, the statute providing federal workers with pay premium for hazardous work does not apply to Veterans Health Administration nurses.

Congress must also adopt legislation on essential worker pay for private-sector nurses. For example, a U.S. House of Representatives Covid-19 legislative package in 2020, the HEROES Act (H.R. 6800), would have provided a "pandemic premium pay" to "essential workers." The legislation would have created a federal fund, called the Covid-19 Heroes Fund, that would provide "essential workers" a $13 per hour premium on top of regular wages.

Require Free Covid-19 Testing, Treatments, and Vaccines for All. With the existence of new Covid-19 treatments or vaccines that are safe and effective, it is critical that our public health infrastructure is improved to allow for the efficient, safe, and equitable rollout of these treatments or vaccines. Any vaccine that is scientifically shown to be safe and effective should be available at no cost to all people who would like to receive the vaccine. The administration must also ensure that the necessary administrative and health care supports are in place to ensure timely follow-up care, if needed, for any patient who has received a vaccine.

The United States must also play a leadership role in ensuring that any treatment or vaccine is made available equitably in the rest of the world. Covid-19 and other infectious diseases do not recognize borders, and our nation has the opportunity to play an important role on the world stage to ensure that low and middle-income countries have access to these treatments and vaccines for free or at a low cost. Ending the pandemic is not only the right thing to do as the wealthiest country in the world, but it is also an essential step in eliminating the patient surges that harm patients and RNs.

PART IV. SOLUTIONS: MEASURES TO STRENGTHEN AND SUPPORT THE RN WORKFORCE PIPELINE

NNU urges Congress and the executive branch to provide robust funding for the programs discussed below, most of which are funded as Nursing Workforce Development programs under Title VIII of the Public Health Service Act.[163] Moreover, Congress and the executive branch should continue to monitor RN education and employment closely and adjust funding as necessary to ensure that patients receive the care they need from a diverse group of culturally and linguistically competent RNs. NNU strongly urges Congress and the Biden administration to adopt the mutually reinforcing policies detailed below to rapidly increase the number and diversity of RNs providing direct patient care at the bedside.

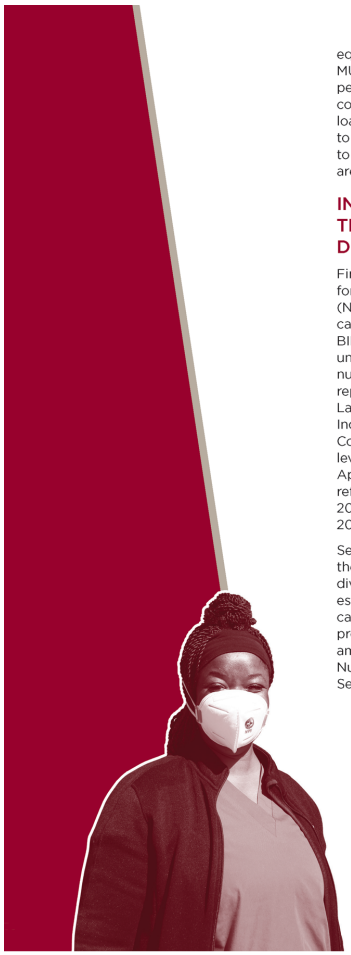
NNU has long advocated for more funding for public nursing schools and incentives to recruit nursing faculty. To ensure a diverse and sustainable nursing workforce, Congress should increase funding for nursing workforce programs that reduce the financial barriers to becoming a nurse imposed by the exorbitant expense of private programs and the lack of admission slots in public nursing programs. NNU believes that federal nursing workforce funding should be increased dramatically and dedicated to ensuring that the direct-care registered nurse workforce, providing the bulk of inpatient hospital care, remains robust and sustainable. Although current federal funding for nursing workforce development is edging upwards, it remains insufficient — apart from the major one-time boost in funding from the American Rescue Plan Act which added $200 million for the Nurse Corps Scholarship and Loan Repayment Program. Given the importance of the RN workforce to the health of our nation, increased spending on nursing workforce development above the amounts typically funded should become the norm, not the exception.

CONGRESSIONAL ACTION »

CREATE A LONG-TERM, DEDICATED FUNDING STREAM FOR TUITION-FREE NURSING PROGRAMS AT PUBLIC COMMUNITY COLLEGES

NNU urges Congress to pass legislation creating long-term dedicated funding streams for tuition-free nursing programs at public community colleges and to give funding priority to public community colleges located in health professional shortage areas (HPSAs) and medically underserved areas and populations (MUAs/MUPs). Tuition-free nursing programs, particularly if coupled with stipends to cover living expenses, diminish the financial and time constraints that are the most common barriers to higher education. With sufficient in-person (not simulated) pre-licensure clinical training, nurses with associate degrees in nursing (ADNs) can be ready for entry-level nursing positions in two years. New RNs then need to be paired with preceptors to make the transition to professional practice.

Locating community colleges in HPSAs and MUAs/MUPs will facilitate local nursing students becoming RNs in these areas and populations. Linking community colleges with local pre-licensure clinical training and post-licensure job placement in public hospitals and critical shortage facilities increases the likelihood that RNs working in these areas will be culturally competent and share values that reflect the communities in which they work. Finally, as many HPSAs and MUAs/MUPs have higher percentages of underrepresented BIPOC community members,[164] locating nursing programs in these areas would tend to serve a more racially and ethnically diverse student population. In turn, increasing tuition-free access to nursing programs could lead to greater RN diversity and improve racial, ethnic, and other disparities in health care access, leading to greater health



equity. Additionally, many HPSAs and MUAs/MUPs are in rural areas with lower RN compensation rates.[165] Providing free community college relieves RNs from the burden of student loan debt, thereby reducing financial pressure to avoid hospitals in underserved areas and to seek employment in urban or more affluent areas where RN salaries are higher.

INCREASE FUNDING FOR THE NURSING WORKFORCE DIVERSITY PROGRAM

First, NNU urges Congress to increase funding for the Nursing Workforce Diversity Program (NWDP) as a crucial step to improving health care access and achieving health equity for BIPOC, rural communities, and medically underserved communities. As discussed above, numerous racial and ethnic groups are underrepresented in the RN workforce, particularly Latinx and Black RNs but also Asian, American Indian, and Alaskan Native RNs. NNU urges Congress, at minimum, to adopt the funding levels reported by the House Committee on Appropriations for fiscal year 2022 which reflects a $6.5 million increase over fiscal year 2021 and an $8 million increase over fiscal year 2020.[166]

Second, NNU believes it is important to include the voice of labor in the nursing workforce diversity discussion and, as the country's largest union and professional association of direct-care registered nurses, we are well suited to provide that voice. NNU requests that Congress amend 42 U.S.C. § 296m to include National Nurses United in the list of organizations in Section (b).

INCREASE FUNDING FOR THE NURSE CORPS SCHOLARSHIP AND LOAN REPAYMENT PROGRAMS

As noted above, the American Rescue Plan Act dramatically increased funding by adding $200 million in fiscal year 2021 for the Nurse Corps Scholarship and Loan Repayment Programs compared to funding ranging $87-$89 million since 2018 and in the low $80 million range prior to that.[167] Yet these programs remain underfunded.

- **Nurse Corps Scholarship Program (NCSP)**

  The NCSP has three funding tiers. Tier 1, the highest preference tier, includes students who maintain full-time enrollment in an accredited nursing program leading to an RN license and/or a nurse practitioner program. Tier 2 includes students who maintain full-time enrollment in an accredited graduate nursing program to become a certified registered nurse anesthetist or clinical nurse specialist. Tier 3 includes students accepted or enrolled part-time in an accredited diploma, undergraduate, or graduate nursing program. The NCSP is highly competitive with far more applicants for scholarship awards than available funding.[168] The lack of funding of NCSP historically has limited awards to Tier 1. NNU advocates for increasing NCSP funding to a level that ensures that all eligible applicants applying to the scholarship or loan repayment programs are fully funded until all those residing in the United States have equitable access to high-quality care across the full range of health care services, and then adjusting the funding to a level sufficient to meet ongoing need for health care professionals.

- **Nurse Corps Loan Repayment Program (NCLRP)**

  The NCLRP provides RNs and advanced practice RNs up to 85 percent repayment of qualifying educational loans in exchange for full-time employment teaching at an eligible nursing school or working at a critical shortage facility. As with the NCSP, lack of funding for the NCLRP has severely limited the number of awards. The NCLRP is "highly competitive" with more applicants than available funding, with application rates of eight to nine times the number of awards given.[169] For example, in 2020 HRSA received 6,223 applications but only provided 456 initial awards and 291 continuation awards. The high number of nurses who apply for NCLRP support but are turned down due to lack of funding demonstrates that RNs, NPs, and APRNs are ready to fulfill unmet needs in critical shortage facilities and schools of nursing but may need federal support because of their student debt obligations.

EXECUTIVE AND REGULATORY ACTION »

IMPROVE THE NURSING WORKFORCE DIVERSITY PROGRAM

The NWDP provides grants "to increase nursing education opportunities for individuals who are from disadvantaged backgrounds (including racial and ethnic minorities underrepresented among registered nurses)."[170] To ensure a representative, culturally and linguistically competent nursing workforce, NNU urges the Health Resources and Services Administration (HRSA), which implements the NWDP, to allocate sufficient funding for research to gather data to better identify racial and ethnic minorities that are underrepresented among registered nurses. This research should include collecting and disaggregating workforce and patient data for Asian, Asian American, and Pacific Islanders and for gender oppressed and gender non-conforming people. Finally, in accordance with Section (b) of 42 U.S.C. § 296m, NNU seeks to work with the Health and Human Services Secretary to ensure a diverse RN workforce by increasing nursing education opportunities. NNU believes it is important for labor to participate in the nursing workforce diversity discussion and that we are well suited to provide that voice.

IMPROVE THE NURSE CORPS SCHOLARSHIP PROGRAM (NCSP)

» **NNU strongly urges HRSA to simplify and ease the ways in which applicants to the NCSP can adjust the expected family contribution based on their actual financial circumstances, including based on their independent status, if they are not dependents on another's income tax filings, have supported themselves in the prior year, or based on other relevant circumstances.**

The NCSP awards scholarships, based on need, for students to attend an accredited school of nursing in exchange for a minimum two years of employment in a critical shortage facility after graduation.[171]

In addition, as will be required when the FAFSA Simplification Act is fully implemented, HRSA should affirmatively inform applicants that they may pursue adjustments to the expected family contribution based on their individual and family circumstances.

» **NNU urges HRSA to increase NCSP funding, particularly for ADN students, as well as devoting some Tier 1 funding to part-time students to enable those with child or elder care responsibilities to attend school.**

In fiscal year 2019, approximately 68 percent of NCSP awards went to bachelor's degree students, 27 percent to master's degree students, while only 5 percent went to associate degree students, and no awards were made to diploma students.[172]

» **In addition, NNU strongly urges HRSA to substantially increase funding for NCSP "career pathway" awards which received only $2 million of the $89 million in funding in the fiscal year 2021 budget.**

Career pathway funding provides scholarships to unlicensed assistive personnel (e.g., certified nursing assistants and home health aides) as well as licensed practical/vocational nurses so that they can become registered nurses. These individuals have both experience and a demonstrated commitment to providing health care which deserves recognition and preferential funding. Moreover, their experience, demonstrated commitment to caring for others, and pursuit of additional education strongly indicates their intention to remain in the health care workforce.[173] Finally, licensed practical/vocational nurses are likely to have completed some of the coursework necessary to becoming a licensed RN, potentially reducing the time from degree completion to entering the workforce.

IMPROVE THE NURSE CORPS LOAN REPAYMENT PROGRAM (NCLRP)

» **In defining funding preference tiers in the NCLRP, NNU advocates that HRSA use HPSA critical shortage facility scores and absolute debt levels rather than a debt-to-salary ratio, as using the debt-to-salary ratio creates an incentive for paying lower wages.**

NCLRP's highest priority should be the placement of nurses in critical shortage areas. Moreover, NNU urges the executive branch to treat NCLRP loan repayment as nontaxable. Finally, NNU urges HRSA to include in NCLRP loan forgiveness all loans that a nurse obtained for training in vocational or practical nursing for coursework required to become an RN as well as loans that have been consolidated/refinanced with ineligible non-qualifying debt or loans of another individual if the eligible qualifying debt can be disaggregated from the ineligible non-qualifying debt.

» **To address the shortage of nursing faculty, NNU urges HRSA to increase NCLRP funding for faculty teaching positions. Funding for faculty teaching positions has been minimal historically and accounted for less than 10 percent of the NCLRP fiscal year 2021 budget.**

According to the American Association of Colleges of Nurses (AACN), a nursing faculty shortage is limiting teaching capacity. The AACN attributes the shortage to budgetary limits, faculty retirements, and competition from clinical jobs with better compensation. Increasing funding for faculty service positions could increase teaching capacity, which is crucial to ensuring that we continue to educate future generations of nurses.[174]

» **NNU also urges HRSA to prioritize placing NCLRP applicants in faculty positions in schools that have at least 50 percent of students from a disadvantaged background, followed by prioritizing the placement of applicants by absolute applicant debt levels rather than debt-to-salary ratio.**

For faculty positions, the NCLRP prioritizes applicants with a higher debt-to-salary ratio and placement at a nursing school where 50 percent of students are from a disadvantaged background, as shown in the funding tiers table (Table 5). Insufficient funding has limited awards for teaching to the first three tiers shown. Increasing funding for the NCLRP would also allow awards to fulfill need in all four preference tiers.

Table 5. **Funding Tiers for Teaching at a School of Nursing**

Funding Preference Tiers	Debt-to-Salary Ratio	Schools of Nursing (SON)
Tier 1	≥100%	SON with at least 50 percent of students from a disadvantaged background
Tier 2		All other SON
Tier 3	<100%	SON with at least 50 percent of students from a disadvantaged background
Tier 4		All other SON

Table 6. **Funding Tiers for RNs, NPs, and APRNs**

Funding Preference Tier For RNs, NPs and APRNs	Debt-to-Salary Ratio	CSF Primary Care or Mental Health HPSA Score
Tier 1	≥100%	25-14
Tier 2	<100%	25-14
Tier 3	≥100%	13-0
Tier 4	<100%	13-0

» **In addition to increasing funding, NNU urges HRSA to prioritize NCLRP awards by HPSA scores, followed by prioritization based on an applicant's absolute debt levels rather than a debt-to-salary ratio in awarding loan repayment funds.**

Similarly, the NCLRP prioritizes those with a higher debt-to-salary ratio and working at a primary or mental health critical shortage facility with a high HPSA score, as shown in the funding tiers table (Table 6). Lack of funding for the NCLRP has limited awards to Tier 1, leaving RNs, NPs, and APRNs with a lower debt-to-salary ratio without student debt support. This is especially troubling with respect to Tier 2, as it funds critical shortage facilities with high HPSA scores.

CONCLUSION

The hospital industry has long engaged in profit-driven policies that result in unsafe staffing levels and poor working conditions. The industry's ongoing failure to protect the health and safety of nurses and patients during the Covid-19 pandemic is a continuation of these policies. The Covid-19 pandemic has become a convenient excuse to ignore their legal duties as employers to protect the nurses that are the backbone of our health care system.

Nurses have been treated as disposable during the pandemic through the hospital industry's refusal to provide necessary optimal personal protective equipment, imposition of long work hours, refusal of sick or quarantine leave and pay, failure to provide employees Covid-19 tests, demanding that nurses work even if they have been exposed to or are recovering from Covid-19, and disciplining nurses who speak out about unsafe conditions for workers and their patients.[175] Consequently, RNs have experienced high rates of Covid-19 infection, resulting in severe illness, lingering physical health effects, and death. The failure by hospital management to staff appropriately and provide the resources needed to provide safe, therapeutic patient care has caused nurses severe moral distress and moral injury (often incorrectly labeled "burnout"); mental health issues such as stress, anxiety, depression, and post-traumatic stress disorder; and physical exhaustion resulting in many nurses leaving the bedside to protect themselves, their nursing licenses, their families, and their patients.

Additionally, understaffing forces nurses to make morally distressing choices about how to allocate their available time for nursing care, and unsafe working conditions force nurses to make a morally distressing choice to provide patient care or protect their own health and safety. Moreover, crisis standards of patient care implemented during the pandemic have caused profound moral distress and injury for nurses as well as myriad adverse mental health effects[176] and are harmful to patients' health and well-being. The hospital industry's flagrant disregard for the lives of nurses, their patients, and their families during the pandemic has taken both a physical and psychological toll on nurses, driving them to nursing jobs outside of the hospital setting or to leave the profession entirely.

Even with the widespread availability of Covid-19 vaccines, hospital industry policies continue to create abhorrent working and patient care conditions that drive nurses from the bedside. The pandemic is far from over and multiple infectious disease precautions, in addition to vaccines, are necessary. Although fewer RNs are contracting Covid-19, breakthrough infections continue to occur. Workplace exposure to Covid-19 continues to place nurses and their family members at risk, particularly for nurses who have young children or other family members who cannot yet be vaccinated, immunocompromised family members, or are immunocompromised themselves. Finally, there are regions in the country where hospitals are still operating under crisis standards of patient care.

National Nurses United urges Congress and the executive branch to support bold legislative and regulatory action to retain the current RN workforce and to encourage new nurses to enter the profession. Retaining the current RN workforce requires regulatory and legislative measures to ensure good, permanent, jobs with safe patient staffing, optimal workplace health and safety protections, fair wages, and robust union rights, including conditioning future pandemic relief funding for the hospital industry on implementing nurse retention measures. Encouraging future generations to enter the RN workforce requires vigorously funding nursing education and job placement programs. These actions should also focus on realigning our health care system to meet the needs of patients rather than the aims of the corporate hospital industry, and ensuring that the nursing workforce reflects the racial, ethnic, cultural, and socioeconomic diversity of our patients.

ENDNOTES

1 National Council of State Boards of Nursing. Nov 6, 2021. "Active RN Licenses, A Profile of Nursing Licensure in the U.S." National Council of State Boards of Nursing. **https://www.ncsbn.org/6161.htm** As the National Council of State Boards of Nursing data excludes Michigan RNs, the number reflects the number of RNs employed in Michigan. The Michigan data comes from U.S. Bureau of Labor Statistics. 2021. "May 2020 Occupational Employment and Wages." U.S. Department of Labor. **https://www.bls.gov/oes/home.htm**.

2 U.S. Bureau of Labor Statistics. 2021. "May 2020 Occupational Employment and Wages." U.S. Department of Labor. **https://www.bls.gov/oes/home.htm**.

3 Health Resources and Services Administration. 2017. "National and Regional Supply and Demand Projections of the Nursing Workforce: 2014-2030." U.S. Department of Health and Human Services. **https://bhw.hrsa.gov/sites/default/files/bureau-health-workforce/data-research/nchwa-hrsa-nursing-report.pdf**.

4 Ibid.

5 Agency for Healthcare Research and Quality. 2019. "National Healthcare Quality and Disparities Report." U.S. Department of Health and Human Services. **https://www.ahrq.gov/sites/default/files/wysiwyg/research/findings/nhqrdr/2019qdr-cx061021.pdf**.

National Advisory Council for Nurse Education and Practice. 2013. "Achieving Health Equity through Nursing Workforce Diversity." U.S. Department of Health and Human Services. **https://www.hrsa.gov/sites/default/files/hrsa/advisory-committees/nursing/reports/2013-eleventhreport.pdf**.

Phillips J, Malone B. 2014. "Increasing Racial/Ethnic Diversity in Nursing to Reduce Health Disparities and Achieve Health Equity." *Public Health Rep*. 129 Suppl 2(Suppl 2):45-50. **https://pubmed.ncbi.nlm.nih.gov/24385664/**.

6 National Nurses United. 2020. "Deadly Shame: Redressing the Devaluation of Registered Nurse Labor Through Pandemic Equity." National Nurses United. **https://www.nationalnursesunited.org/sites/default/files/nnu/graphics/documents/1220_Covid19_DeadlyShame_PandemicEquity_WhitePaper_FINAL.pdf**.

7 For example, see article by Bean M, Masson G. Oct 4, 2021. "The less-discussed consequence of healthcare's labor shortage." Becker's Hospital Review. **https://www.beckershospitalreview.com/patient-safety-outcomes/the-less-discussed-consequence-of-healthcare-s-labor-shortage.html**. S

8 Aiken L et al. 2000. "Hospital Restructuring: Does it Adversely Affect Care and Outcomes? *J Nurs Adm*. 30(10):457-65. doi:10.1097/00005110-200010000-00003.

DeMoro D. 2000. "Engineering a Crisis. How Hospitals Created a Shortage of Nurses." *Revolution*. 1(2):16-23. PMID: 12018079.

Gordon S. 1997. "What Nurses Stand For." *Atlantic Monthly*. 279(2):81. **https://www.theatlantic.com/magazine/archive/1997/02/what-nurses-stand-for/376776/**.

Norrish B, Rundall T. 2001. "Hospital Restructuring and the Work of Registered Nurses." *Milbank Q*. 79(1):55-79. doi:10.1111/1468-0009.00196.

Shogren E et al. 1996. "Issues Update: Restructuring May Be Hazardous to Your Health." *Am J Nursing*. 96(11):64-66.

9 Lasater K et al. 2021. "Chronic Hospital Nurse Understaffing Meets COVID-19: An Observational Study." *BMJ Quality & Safety*. 30:639-647.

10 Pajer N. Jan 26, 2021. "What Frustrates Nurses the Most Right Now in the COVID-19 Pandemic." *Huffington Post*. **https://www.huffpost.com/entry/what-is-frustrating-nurses-covid-pandemic_l_600f0a4fc5b6a46978d3844c**.

Silver-Greenberg J et al. Jun 8, 2020. "Hospitals Got Bailouts and Furloughed Thousands While Paying C.E.O.s Millions." *New York Times*. **www.nytimes.com/2020/06/08/business/hospitals-bailouts-ceo-pay.html**.

11 National Nurses United. 2021. "Injury to None: Preventing Workplace Violence to Protect Health Care Workers and Their Patients." National Nurses United. **https://www.nationalnursesunited.org/sites/default/files/nnu/documents/0221_HS_WPV_InjuryToNone_Brief.pdf**.

12 Zwerdling D. Feb 18, 2015. " Hospital to Nurses: Your Injuries are not Our Problem." *NPR*. **https://www.npr.org/2015/02/18/385786650/injured-nurses-case-is-a-symptom-of-industry-problems**.

13 National Nurses United. "Deadly Shame..." (2020).

14 See ibid. and the results from NNU's sixth survey of RNs on Covid-19. National Nurses United. Sep 27, 2021. "National Nurse Survey Reveals That Health Care Employers Need to Do More to Comply with OSHA Emergency Temporary Standard." National Nurses United. **https://www.nationalnursesunited.org/press/national-nurse-survey-reveals-health-care-employers-need-to-do-more-to-protect-workers**..

15 U.S. Bureau of Labor Statistics. 2020. "Occupational Injuries and Illnesses and Fatal Injuries Profiles." U.S. Department of Labor. **https://www.bls.gov/iif/oshwc/osh/case/cd_r100_2020.htm**.

16 In 2020, the violence-related injury rate for workers overall in the U.S. was 4.0 per 10,000 full-time employees compared to the rate for RNs at 18.2 per 10,000 full-time employees. Ibid.

17 In 2019, the violence-related injury rate for RNs in private industry in the U.S. was 14.0 per 10,000 full-time employees. U.S. Bureau of Labor Statistics. 2019. "Occupational Injuries and Illnesses and Fatal Injuries Profiles." U.S. Department of Labor. **https://www.bls.gov/iif/oshwc/osh/case/cd_r100_2019.htm**. For a discussion of the increase in workplace violence during the Covid-19 pandemic, see National Nurses United. Nov 2021. "Workplace Violence and Covid-19 in Health Care: How the Hospital Industry Created an Occupational Syndemic." National Nurses United. **https://www.nationalnursesunited.org/sites/default/files/nnu/documents/1121_WPV_HS_Survey_Report_FINAL.pdf**.

18 In 2020, the musculoskeletal disorder rate for workers overall was 26.9 per 10,000 full-time employees and the back injury rate for workers overall was 13.6 per 10,000 full-time employees. U.S. Bureau of Labor Statistics. "Occupational Injuries..."(2020).

19 Lipscomb J et al. 2004. "Health Care System Changes and Reported Musculoskeletal Disorders Among Registered Nurses." *Am J Public Health*. 94(8):1431-36. **https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1448467/**.

20 Lee S et al. 1999. "Work-related Assault Injuries Among Nurses." *Epidemiology*. 10(6):685-91. **https://pubmed.ncbi.nlm.nih.gov/10535781/**.

21 Aiken L et al. 2002. "Hospital Nursing Staffing and Patient Mortality. Nurse Burnout, and Job Dissatisfaction." *JAMA*. 288(16):1987-93. **https://pubmed.ncbi.nlm.nih.gov/12387650/**.

22 Johansen M. 2014. "Conflicting Priorities: Emergency Nurses Perceived Disconnect Between Patient Satisfaction and the Delivery of Quality Patient Care." *Journal of Emergency Nursing* 40(1):13-19.

Moffatt-Bruce S et al. 2015. "Facing the Tension between Quality Measures and Patient Satisfaction." *American Journal of Medical Quality* 30(5):489-490.

Numerous articles have been written about the conflicts between patient satisfaction scores and quality health care. For example, see Tevis S et al. 2014. "Can Patients Reliably Identify Safe, High Quality Care?" *Journal of Hospital Administration* 3(5):150.

23 Ibid.

24 Nelson R. 2012. "Patient Satisfaction Metrics: Customer Service or Quality Care?" *Am J Nursing*. 112(8):18-19.

25 Studer Group. 2021. "AIDET Patient Communication." **https://www.studergroup.com/aidet**..

26 Welch S. Dec 15, 2015. "AIDET: A Popular Way of Improving Patients' Care Experience." *ACEP Now*. **https://www.acepnow.com/article/aidet-a-popular-way-of-improving-patients-care-experience/**.

27 Ibid.

28 Nelson R. "Patient Satisfaction Metrics..." (2012).

29 Welch S. "AIDET..." (Dec 15, 2015).

30 Tardiff C. 2012. "Patient Satisfaction Metrics." Letter to the editor. *Am J Nursing*. 112(12):12.

31 Miller J. 2012. "Patient Satisfaction Metrics." Letter to the editor. *Am J Nursing*. 112(12):12.

32 Hospitals' restriction of professional judgment affects other clinicians besides RNs. For example, physicians at a California hospital contend that the system to which the hospital belongs has standardized clinical guidelines through a shared electronic health record system that are "often driven by cost considerations" and that the guidelines "often [conflict] with their own judgment of best medical practices." Wolfson B. Apr 13, 2012. "Orange County Hospital Seeks Divorce From Large Catholic Health System." *Kaiser Health News*. **https://khn.org/news/article/orange-county-hospital-seeks-divorce-from-large-catholic-health-system/**.

33 Hong J et al. 2021. "Disappearing Expertise in Clinical Automation: Barcode Medication Administration and Nurse Autonomy." *J Am Medical Informatics Association: JAMIA* 28(2):232-238. doi:10.1093/jamia/ocaa135.

34 See discussion of the literature, MacKinnon K, Butcher DL, Bruce A. 2018. "Working to Full Scope: The Reorganization of Nursing Work in Two Canadian Community Hospitals." *Global Qualitative Nursing Research*. 11. doi:10.1177/2333393617753905.

35 See ibid.

Pine A. 2014. "On Caring: Solidarity Anthropology (or, How to Keep Health Care from Becoming Science Fiction)." In Stryker R, González R. "Up, down, and Sideways: Anthropologists Trace the Pathways of Power." *Berghahn Books*.

36 Counter-intuitively, the hospital industry's insistence on hiring nurses with bachelor's degrees rather than nurses with associate degrees seems to have been replaced hypocritically with a willingness to use licensed practical nurses with less education and clinical experience. For example, the American Hospital Association (AHA) offers the following solution to the RN staffing crisis: "Team-based staffing: One RN supervises a team of licensed practical nurses, aides and other support staff caring for a group of patients." Although AHA mentions both ADNs and BSNs in this white paper, nowhere does AHA advocate hiring more ADNs, yet the report seems to celebrate the expansion of BSN programs. However, that discussion is beyond the scope of this report. American Hospital Association. 2021. "2022 Health Care Talent Scan." American Hospital Association. 14. **https://www.aha.org/system/files/media/file/2021/10/AHA-Health-Care-Talent-Scan-2022.pdf**.

37 Smiley R. 2019. "Survey of Simulation Use in Prelicensure Nursing Programs: Changes and Advancements, 2010–2017." *J Nurs Reg*. 9(4):48-61.

38 National Council of State Boards of Nursing. 2013. "Member Board Profiles: Educational Programs." National Council of State Boards of Nursing. **https://www.ncsbn.org/Educational_Programs_Entry_into_Practice.pdf**.

39 Spector N et al. 2018. "Board of Nursing Approval of Registered Nurse Education Programs. *J Nursing Regulation*. 8(4):22-31.

40 Ibid.

41 NNU calculations based on Health Resources and Services Administration, National Center for Health Workforce Analysis. 2019. "2018 National Sample Survey of Registered Nurses: Brief Summary of Results." U.S. Department of Health and Human Services. **https://data.hrsa.gov/DataDownload/NSSRN/GeneralPUF18/nssrn-summary-report.pdf**; and

U.S. Census Bureau. 2019. "QuickFacts." **https://www.census.gov/quickfacts/fact/table/US/PST045219-nc-est2019-sr11h**.

42 National Nurses United. Feb 28, 2020. "Nation's Hospitals Unprepared for COVID-19." National Nurses United. **https://www.nationalnursesunited.org/press/nations-hospitals-unprepared-covid-19**.

43 National Nurses United. Mar 27, 2020. "National Nurses United is Stepping Up Pressure On Hospital Employers Across the United States to Provide Safer Facilities." National Nurses United. **https://www.nationalnursesunited.org/press/national-nurses-united-stepping-pressure-hospital-employers-across-united-states-provide**.

44 O'Leary L. Mar 19, 2020. "The Modern Supply Chain is Snapping." *The Atlantic*. **https://www.theatlantic.com/ideas/archive/2020/03/supply-chains-and-coronavirus/608329/**.

45 Jewett C. Nov 4, 2021. "Patients Went Into the Hospital for Care. After Testing Positive There for Covid, Some Never Came Out." *Kaiser Health News*. **https://khn.org/news/article/hospital-acquired-covid-nosocomial-cases-data-analysis/**.

46 This definition is a composite that comes primarily from Morley G et al. May 2019. "What is 'Moral Distress'? A Narrative Synthesis of the Literature." Nurs Ethics. 26(3): 646–62. doi:10.1177/0969733017724354. Citing Jameton A. 1984. Nursing Practice: The Ethical Issues. Prentice-Hall. With additional material from Varcoe C et al. Mar 2012. "Moral Distress: Tensions as Springboards for Action." HEC Forum. 24(1): 51–62. doi:10.1007/s10730-012-9180-2.

47 Coleman J. Mar 26, 2020. "Photo Shows NY Hospital Staff Using Trash Bags as Protective Gear." *The Hill*. **https://thehill.com/policy/healthcare/489622-photo-shows-staff-using-trash-bags-as-protective-gear-in-hospital-system**.

Sanchez T. Apr 2, 2020. "Coronavirus: Nurses are Wearing Trash Bags at One Bay Area Hospital Facing a Protective Equipment Shortage." *San Francisco Chronicle*. **https://www.sfchronicle.com/bayarea/article/Coronavirus-Nurses-are-wearing-trash-bags-at-one-15172777.php**.

48 Jewett C. Nov 4, 2021. "Patients Went Into the Hospital for Care. After Testing Positive There for Covid, Some Never Came Out." *Kaiser Health News*. **https://khn.org/news/article/**

hospital-acquired-covid-nosocomial-cases-data-analysis/.

49 Gold J, Hawryluk M. May 13, 2020. "Hospital Workers Complain of Minimal Disclosure After COVID Exposures." *Kaiser Health News*. **https://khn.org/news/hospital-workers-complain-of-minimal-disclosure-after-covid-exposures/**.

50 The data on infection and death rates in this paragraph is from an unpublished update as of November 29, 2021, of National Nurses United. Updated Mar 2021. "Sins of Omission: How Government Failures to Track Covid-19 Data Have Led to More Than 3,200 Health Care Worker Deaths and Jeopardize Public Health." National Nurses United. **https://www.nationalnursesunited.org/sites/default/files/nnu/documents/0321_Covid19_SinsOfOmission_Data_Report.pdf**.

51 Ibid.

52 Ibid.

53 U.S. Bureau of Labor Statistics. Jan 2020. "Household Data, Annual Averages, Employed Persons by Detailed Occupation, Sex, Race, and Hispanic or Latino Ethnicity." U.S. Department of Labor. **https://www.bls.gov/cps/cpsaat11.pdf**.

54 The U.S. Bureau of Labor Statistics does not disaggregate Filipinx RNs from Asian RNs. This statistic comes from McFarling U. Apr 28, 2020. "The Pandemic is Taking an Outsized Toll on Filipino American Nurses." *STAT*. **https://www.statnews.com/2020/04/28/coronavirus-taking-outsized-toll-on-filipino-american-nurses/**.

55 U.S. Bureau of Labor Statistics. "Household Data..." (Jan 2020).

56 McFarling U (Apr 28, 2020).

57 Wingfield A. May 14, 2020. "The Disproportionate Impact of Covid-19 on Black Health Care Workers in the U.S." *Harvard Business Review*. **https://hbr.org/2020/05/the-disproportionate-impact-of-covid-19-on-black-health-care-workers-in-the-u-s**.

58 Nguyen L et al. Jul 31, 2020. "Risk of COVID-19 Among Front-Line Health-Care Workers and the General Community." *Lancet*. 5(9): E475-E483. doi:10.1016/S2468-2667(20)30164-X.

59 Ibid.

60 Grimm CA. Apr 3, 2020. "Hospital Experiences Responding to the COVID-19 Pandemic: Results of a National Pulse Survey March 23–27, 2020." Office of the Inspector General. U.S. Department of Health and Human Services. **https://oig.hhs.gov/oei/reports/oei-06-20-00300.pdf**.

61 American Hospital Association. Mar 11, 2021. "Statement of the American Hospital Association for the Workforce Protections Subcommittee of the Committee on Education and Labor of the U.S. House of Representatives 'Clearing the Air: Science-Based Strategies to Protect Workers from COVID-19 Infections.'" American Hospital Association. **https://www.aha.org/testimony/2021-03-11-aha-statement-clearing-air-science-based-strategies-protect-workers-covid-19**.

62 Studies on COVID-19 airborne transmissibility include:

Bourouiba L. Mar 26, 2020. "Turbulent Gas Clouds and Respiratory Pathogen Emissions: Potential Implications for Reducing Transmission of COVID-19." *JAMA*. 323(18):1837–38. doi:10.1001/jama.2020.4756.

Lednicky et al. 2020. "Viable SARS-CoV-2 in the Air of a Hospital Room With Covid-19 Patients." *International J Infectious Diseases*. 100:476-482. doi: 10.1016/j.ijid.2020.09.025.

van Doremalen N et al. Apr 16, 2020. "Aerosol and Surface Stability of SARS-CoV-2 as Compared with SARS-CoV-1." *N Engl J Med*. 382:1564–67. doi:10.1056/NEJMc2004973.

Santarpia et al. Jul 21, 2020. "The Infectious Nature of Patient-Generated SARS-CoV-2 Aerosol." Preprint. *medRxiv*. doi: 10.1101/2020.07.13.20041632.

Wolfel R et al. Apr 1, 2020. "Virological Assessment of Hospitalized Patients with COVID-2019." *Nature*. 581: 465–69. doi:10.1038/s41586-020-2196-x.

For additional studies, see National Nurses United's COVID-19 bibliography at this link: **https://www.nationalnursesunited.org/covid-19-bibliography**.

63 Studies on the need for respirators to protect health care workers from COVID-19 infections include:

Chen W et al. Jul 2020. "To Protect Healthcare Workers Better, To Save More Lives." *Anesth & Analg*. 131(1): 97–101. doi:10.1213/ANE.0000000000004834.

Feldman O et al. Apr 27, 2020. "Exposure to a Surrogate Measure of Contamination from Simulated Patients by Emergency Department Personnel Wearing Personal Protective Equipment." *JAMA*. 323(20): 2091–93. doi:10.1001/jama.2020.6633.

Liu M et al. Jun 10, 2020. "Use of Personal Protective Equipment Against Coronavirus

Disease 2019 by Healthcare Professionals in Wuhan, China: Cross Sectional Study." *BMJ*. 369:m2195. doi:10.1136/bmj.m2195.

For additional studies, see National Nurses United's COVID-19 bibliography at: **https://www.nationalnursesunited.org/covid-19-bibliography**.

64 An open letter to the World Health Organization from 239 scientists also invokes the precautionary principle but does not make any recommendations for health care settings. See Morawska L, Milton D. Jul 6, 2020. "It Is Time to Address Airborne Transmission of Coronavirus Disease 2019 (COVID-19)." *Clinical Infectious Diseases*. 71(9):2311-2313. doi:10.1093/cid/ciaa939.

65 Gallegos A. Mar 25, 2020. "Hospitals Muzzle Doctors, Nurses on PPE, COVID-19 Cases." *Medscape*. **https://www.medscape.com/viewarticle/927541**.

Scheiber N, Rosenthal B. Apr 27, 2020. "Nurses and Doctors Speaking Out on Safety Now Risk Their Job." *The New York Times*. **https://www.nytimes.com/2020/04/09/business/coronavirus-health-workers-speak-out.html.**

66 Perkins T. Apr 27, 2020. "These Workers Spoke Out. Their Hospitals Fired Them." *HuffPost*. **https://www.huffpost.com/entry/hospitals-fire-doctors-nurses-covid-19_n_5ea2fcb1c5b6f9639813d50b**.

Scheiber N, Rosenthal B (Apr 27, 2020).

67 Lacy A. Mar 24, 2020. "Kaiser Permanente Threatened to Fire Nurses Treating COVID-19 Patients for Wearing Their Own Masks, Union Says." *The Intercept*. **https://theintercept.com/2020/03/24/kaiser-permanente-nurses-coronavirus/**.

68 Whitman E. Mar 20, 2020. "'Taking Masks Off Our Faces': How Arizona Hospitals Are Rationing Protective Gear." *Phoenix New Times*. **https://www.phoenixnewtimes.com/news/arizona-hospitals-rationing-masks-protective-gear-banner-11459400**.

69 American Hospital Association. May 14, 2020. "Letter to Nancy Pelosi." American Hospital Association. **https://www.aha.org/system/files/media/file/2020/05/web-AHALettertoHouseonHEROESAct051420final.pdf**.

Mason D, Friese C. "Protecting Health Care Workers Against COVID-19 — and Being Prepared for Future Pandemics." *JAMA Health Forum*. Mar 19, 2020. **https://jamanetwork.com/channels/health-forum/fullarticle/2763478**. Citing Kopp E. "Hospitals Want to Kill a Policy Shielding Nurses from COVID-19 Because There Aren't Enough Masks." *Roll Call*. Mar 3, 2020. **https://www.rollcall.com/2020/03/13/hospitals-want-to-kill-a-policy-shielding-nurses-from-covid-19-because-there-arent-enough-masks/**..

70 American Hospital Association. Mar 11, 2021. "Statement of the American Hospital Association for the Workforce Protections Subcommittee of the Committee on Education and Labor of the U.S. House of Representatives 'Clearing the Air: Science-Based Strategies to Protect Workers from COVID-19 Infections.'" American Hospital Association. **https://www.aha.org/testimony/2021-03-11-aha-statement-clearing-air-science-based-strategies-protect-workers-covid-19**.

71 California Hospital Association. Mar 12, 2020. "Letter to the California Congressional Delegation." California Hospital Association. **https://www.calhospital.org/sites/main/files/file-attachments/ca_delegation_-_covid-19_requests_-_final.pdf**.

Gollan J, Shogren E. May 12, 2020. "31,000 and Counting." *Reveal*. https://revealnews.org/article/31000-and-counting/. Cites to Letter from Washington Congressional Delegation to CDC Director Redfield. March 4, 2020. **https://www.documentcloud.org/documents/6884965-WA-Delegation-Letter-to-Redfield.html**.

For an in-depth discussion of CDC's problematic position on airborne transmission of Covid-19 and health care workers' need for respiratory protection, see NNU's white paper: National Nurses United. "Deadly Shame..." (2020).

72 Centers for Disease Control and Prevention. Updated Sep 16, 2021. "Strategies for Optimizing the Supply of N95 Respirators." Centers for Disease Control and Prevention. **https://www.cdc.gov/coronavirus/2019-ncov/hcp/respirators-strategy/index.html**.

73 Frederick J. Jun 28, 2021. "AHA letter to OSHA on COVID-19 Health Care Emergency Temporary Standard." American Hospital Association. **https://www.aha.org/lettercomment/2021-06-29-aha-letter-osha-covid-19-health-care-emergency-temporary-standard**.

74 For additional information on hospitals' ongoing failure to protect employees and patients, see National Nurses United. "National Nurse Survey..." (Sep 27, 2021).

75 For example, see Hanna J, Kaufman E. Mar 27, 2020. "More than 150 employees at 4 Boston Hospitals Have Tested Positive for Coronavirus." *CNN*. **https://www.**

cnn.com/2020/03/26/health/boston-coronavirus-hospitals-employees-test-positive/index.html and

Pohl J et al. Apr 2, 2020. "Medical Employees Say They're Getting COVID-19 on the Job. Here's Why Hospitals Push Back." *Sacramento Bee*. **https://www.sacbee.com/article241692061.html**.

76 Cox J. Apr 28, 2020. "What Happens if You and Daddy Die?" *The Washington Post*. **https://www.washingtonpost.com/graphics/2020/local/children-doctors-nurses-coronavirus-death/**.

Cox J et al. Mar 18, 2020. "'Dad, Are You Okay?': Doctors and Nurses Fighting Pandemic Fear Infecting Their Families?" *The Washington Post*. **https://www.washingtonpost.com/local/dad-are-you-okay-doctors-and-nurses-fighting-pandemic-fear-infecting-their-families/2020/03/18/8beefc66-689b-11ea-b313-df458622c2cc_story.html.**

Forgrave R. Mar 21, 2020. "Mask Shortage Hits Home: One Nurse's Story of Looking for Protective Masks." *Star Tribune*. **https://www.startribune.com/mask-shortage-hits-home-one-nurse-s-story-of-looking-for-protective-masks/568983442/**.

Greenberg N et al. Mar 26, 2020. "Managing Mental Health Challenges Faced by Healthcare Workers During COVID-19 Pandemic." *BMJ*. 368:m1211. doi:10.1136/bmj.m1211.

Luis C, Vance C. May/Jun 2020. "A Pandemic Crisis: Mentoring, Leadership, and the Millennial Nurse." *Nursing Economic$*. 38(3):152–63.

McConnell D. Jun 2020. "Balancing the Duty to Treat with the Duty to Family in the Context of the COVID-19 Pandemic." *J Med Ethics*. 46(6):360–63. doi:10.1136/medethics-2020-106250.

Sacharczyk T. Mar 25, 2020. "Nurse Seeks Balance Between Caring for Patients and Her Family." *NBC 10 News*. **https://turnto10.com/news/local/nurse-seeks-balance-between-caring-for-patients-and-her-family.**

77 Greenberg N et al (Mar 26, 2020).

Jannsen S. Apr 6, 2020. "Moral Injury in Health Care and COVID-19." *Social Work Today*. **https://www.socialworktoday.com/archive/exc_040620.shtml.**

Stoycheva V. "For Health Workers, COVID-19 Can Be a Moral Injury Pandemic." *Psychol Today*. Apr 13, 2020. **https://www.psychologytoday.com/us/blog/the-everyday-unconscious/202004/health-workers-covid-19-can-be-moral-injury-pandemic.**

78 McFarling U (Apr 28, 2020); Sacharczyk T (Mar 25, 2020).

79 Ibid.

80 Guarino B. Apr 16, 2020. "Nurses, Doctors Take Extreme Precautions to Avoid Infecting Family Members." *The Washington Post*. **https://www.washingtonpost.com/health/2020/04/16/nurses-doctors-are-taking-extreme-precautions-avoid-bringing-coronavirus-home/**.

81 Ibid.

82 McConnell D (Jun 2020).

83 Ibid.

84 Cox J (Apr 28, 2020).

Cox J et al. (Mar 18, 2020).

Forliti A. Apr 5, 2020 "Doctors, Nurses Leave Homes to Protect Families from Virus." *Associated Press*. https://apnews.com/8697a4883bf8799aa235c393ed505bfe.

Guarino B (Apr 16, 2020).

Lee YJ. Apr 4, 2020. "Sleeping in the Attic: How a NYC Nurse is Trying to Keep Her Family Safe from the Coronavirus as She Works on the Front Lines." *Business Insider*. **https://www. businessinsider.com/nyc-nurse-shieldingfamily-coronavirus-exposure-2020-4**.

McFarling U (Apr 28, 2020).

85 Forliti A (Apr 5, 2020).

Hardin T. May 21, 2020. "Written Testimony." Briefing, Heroes of the Coronavirus Crisis: Protecting Front-line and Essential Workers During the Pandemic, before Select Subcommittee on the Coronavirus Crisis of the House Oversight Committee. **https://coronavirus.house.gov/subcommittee-activity/briefings/heroes-coronavirus-crisis-protecting-frontline-and-essential-workers**.

McFarling U (Apr 28, 2020).

86 Hardin T (May 21, 2020).

87 Ibid.

Nguyen J. Mar 17, 2020. "Nurse Sends Her Kids to Live with Grandparents While She Fights Coronavirus." *Channel 933*. **https://channel933.iheart.com/content/nurse-sends-her-kids-to-live-with-grandparents-while-she-fights-coronavirus-new-york/.**

White D. Apr 8, 2020. "Hospital Workers Send Kids Away, Live in Campers to Protect Family During Coronavirus." *The Kansas City Star*. **https://www.kansascity.com/news/coronavirus/article241859741.html.**

88 Twohey M. Apr 7, 2020. "New Battle for Those on Coronavirus Front Lines: Child Custody." *The New York Times*. **https://www.nytimes.com/2020/04/07/us/coronavirus-child-custody.html.**

89 Cox J (Apr 28, 2020); Cox J et al. (Mar 18, 2020); Forgrave R (Mar 21, 2020); Hardin T (May 21, 2020).

90 Cox J (Apr 28, 2020).

91 For example, see Hardin T (May 21, 2020) and Kunkle F. Jul 27, 2020. "Head of Baltimore ICU Dies of Coronavirus, Surrounded by His Staff and Husband." *The Washington Post*. **https://www.washingtonpost.com/local/head-of-baltimore-hospitals-icu-dies-of-coronavirus/2020/07/27/3831bfb8-d052-11ea-8d32-1ebf4e9d8e0d_story.html**.

92 American Public Health Association. May 11, 2020. "APHA Sounds Alarm over Mental Health in Midst of COVID-19 Pandemic." American Public Health Association. **https://www.apha.org/news-and-media/news-releases/apha-news-releases/2020/apha-sounds-alarm-on-mental-health**.

Panchal N et al. Aug 21, 2020. "The Implications of COVID-19 for Mental Health and Substance Abuse." Kaiser Family Foundation. **https://www.kff.org/coronavirus-covid-19/issue-brief/the-implications-of-covid-19-for-mental-health-and-substance-use/**.

American Psychological Association. May 2020. "Stress in America™ 2020." American Psychological Association. **https://www.apa.org/news/press/releases/stress/2020/report**.

93 Studies of health care workers in other countries had similar findings as studies of U.S. health care workers.

94 Shanafelt T et al. Apr 07, 2020. "Understanding and Addressing Sources of Anxiety Among Health Care Professionals During the COVID-19 Pandemic." *JAMA*.323(21): 2133–34. doi:10.1001/jama.2020.5893.

95 Hernandez J et al. 2021. "Traumatic Stress Among Frontline American Nurses During the COVID-19 Pandemic: A Survey Study." *Traumatology*. Advance online publication. doi:10.1037/trm0000320.

96 Press releases with survey information are available online. See:

National Nurses United. Mar 05, 2020. "Survey of Nation's Frontline Registered Nurses Shows Hospitals Unprepared For COVID-19." National Nurses United. **https://www.nationalnursesunited.org/press/survey-nations-frontline-registered-nurses-shows-hospitals-unprepared-covid-19**.

National Nurses United. May 20, 2020. "New Survey of Nurses Provides Frontline Proof of Widespread Employer, Government Disregard for Nurse and Patient Safety, Mainly Through Lack of Optimal PPE." National Nurses United. **https://www.nationalnursesunited.org/press/new-survey-results**.

National Nurses United. Jul 28, 2020. "National Nurse Survey Reveals Devastating Impact of Reopening Too Soon." National Nurses United. **https://www.nationalnursesunited.org/press/national-nurse-survey-reveals-devastating-impact-reopening-too-soon**.

National Nurses United. Nov 12, 2020. "National Nurse Survey Exposes Hospitals' Knowing Failure to Prepare for a Covid-19 Surge During Flu Season." National Nurses United. **https://www.nationalnursesunited.org/press/national-nurse-survey-4-exposes-hospitals-knowing-failure-prepare-covid-19-surge**.

National Nurses United. Mar 10, 2021. "National RN Survey Highlights Continued Hospital Failures to Prioritize Nurse and Patient Safety During Pandemic." National Nurses United. **https://www.nationalnursesunited.org/press/fifth-survey-of-national-nurses-highlights-continued-hospital-failures**.

National Nurses United. "National Nurse Survey..." (Sep 27, 2021).

97 National Nurses United. "National Nurse Survey..." (Nov 12, 2020).

98 Centers for Disease Control and Prevention. Last Reviewed Jul 22, 2021. "Reducing Stigma." U.S. Department of Health and Human Services. **https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/reducing-stigma.html**.

Ruiz N et al. Jul 1, 2020. "Many Black, Asian Americans Say They Have Experienced Discrimination Amid the COVID-19 Outbreak." *Pew Research Center*. **https://www.pewsocialtrends.org/2020/07/01/many-black-and-asian-americans-say-they-have-experienced-discrimination-amid-the-covid-19-outbreak/**.

99 Hawkins D. Jun 15, 2020. "Differential Occupational Risk for COVID-19 and Other Infection Exposure According to Race and Ethnicity." *Am J Ind Med*. 1–4. doi:10.1002/ajim.23145.

100 David E. Apr 15, 2020. "Five Ways COVID-19 Might Be Affecting Filipino Americans." *Psych*

Today. **https://www.psychologytoday.com/us/blog/unseen-and-unheard/202004/5-ways-covid-19-might-be-affecting-filipino-americans**.

Lee J, Yadav M. May 21, 2020. "The Rise of Anti-Asian Hate in the Wake of Covid-19." *Items, Insights from the Social Sciences, Social Science Research Council.* **https://items.ssrc.org/covid-19-and-the-social-sciences/the-rise-of-anti-asian-hate-in-the-wake-of-covid-19/**.

101 Wingfield A. (May 14, 2020).

102 Wiley M. Jun 24, 2020. "'I Feel So Overwhelmed': COVID-19 and Police Violence Takes a Toll on Black Health Care Workers." *KQED*. **https://www.kqed.org/news/11825898/i-feel-so-overwhelmed-covid-19-and-police-violence-takes-a-toll-on-black-health-care-workers**.

103 Kadri S et al. 2021. "Association between caseload surge and COVID-19 survival in 558 US hospitals, March to August 2020." *Annals of Internal Medicine* 174.9:1240-1251. **https://www.acpjournals.org/doi/10.7326/M21-1213**.

104 Morley G et al. May 2019. "What is 'Moral Distress'? A Narrative Synthesis of the Literature." *Nurs Ethics*. 26(3): 646–62. doi:10.1177/0969733017724354. Citing Jameton A. 1984. *Nursing Practice: The Ethical Issues*. Prentice-Hall.

105 Ibid.

106 Varcoe C et al. Mar 2012. "Moral Distress: Tensions as Springboards for Action." *HEC Forum*. 24(1): 51–62. doi:10.1007/s10730-012-9180-2.

107 National Nurses United. "National Nurse Survey..." (Jul 28, 2020).

National Nurses United. "National Nurse Survey...." (Nov 12, 2020).

National Nurses United. "National RN Survey..." (Mar 10, 2021).

National Nurses United. "National Nurse Survey..." (Sep 27, 2021).

108 Griffin K et al. Jul 1, 2020. "Hospital Preparedness for COVID-19: A Practical Guide From a Critical Care Perspective." *Amer J of Resp and Crit Care Med*. 49(4):342–43. doi:10.1164/rccm.202004-1037CP.

Rosenbaum L. Mar 18, 2020. "Facing Covid-19 in Italy — Ethics, Logistics, and Therapeutics on the Epidemic's Front Line." *N Engl J Med*. 382:1873–75. doi:10.1056/NEJMp2005492.

Greenberg N et al. (Mar 26, 2020).

Williamson V et al. Apr 2, 2020. "COVID-19 and Experiences of Moral Injury in Front-Line Key Workers." *Occup Med (Lond.)*. 70(5):317-319. doi:10.1093/occmed/kqaa052.

109 Rosenbaum L (Mar 18, 2020).

Ridderbusch K. Apr 22, 2020. "For Hospital Chaplains, Coronavirus Has Shifted Spiritual Care." *U.S. News and World Report*. **https://www.usnews.com/news/healthiest-communities/articles/2020-04-22/coronavirus-shifts-spiritual-care-for-hospital-chaplains.**

110 Berlinger N et al. Mar 16, 2020. "Ethical Framework for Health Care Institutions and Guidelines for Institutional Ethics Services Responding to the Coronavirus Pandemic." *The Hastings Center*. **https://www.thehastingscenter.org/ethicalframeworkcovid19/**.

111 Kane R et al. Dec 2007. "The Association of Registered Nurse Staffing Levels and Patient Outcomes: Systematic Review and Meta-Analysis." *Medical Care*. 45(12):1195–204. doi:10.1097/mlr.0b013e3181468ca3.

National Nurses United. Jun 2019. "RN Staffing Ratios: A Necessary Solution to the Patient Safety Crisis in U.S. Hospitals." National Nurses United. **https://act.nationalnursesunited.org/page/-/files/graphics/0619_Ratios_Booklet_NNU.pdf.**

Sakr Y et al. Mar 2015. "The Impact of Hospital and ICU Organizational Factors on Outcome in Critically Ill Patients." *Crit Care Med*. 43(3):519–26. doi:10.1097/CCM.0000000000000754.

112 Halpern NA, Tan KS. May 13, 2020. "United States Resource Availability for COVID-19." *Soc Crit Care Med*. **https://sccm.org/Blog/March-2020/United-States-Resource-Availability-for-COVID-19**.

113 Jansson M et al. Jun 2, 2020. "The Proportion of Understaffing and Increased Nursing Workload are Associated with Multiple Organ Failure: A Cross-Sectional Study." *J Adv Nurs*. 76:2113–24. doi:10.1111/jan.14410.

Kane R et al. (Dec 2007); National Nurses United. "RN Staffing Ratios..." (Jun 2019); Sakr Y et al. (Mar 2015).

114 Lin Z et al. Apr 23, 2020. "Psychological Burden in Health Care Professionals in Chinese Cities During the Coronavirus Disease 2019 (COVID-19) Outbreak." *SSRN* preprints with *The Lancet*. doi:10.2139/ssrn.3576782. **https://ssrn.com/abstract=3576782**. Citing Chen R et al. Feb 2006. "Effects of a SARS Prevention Programme in Taiwan on Nursing Staff's Anxiety, Depression and Sleep Quality: A Longitudinal Survey." *Int J Nurs Stud*. 43: 215.

O'Halloran J. May 6, 2020. "I'm a Nurse in a COVID-19 Unit. My Hospital's Leaders Frighten Me More Than the Virus." *STAT*. https://www.statnews.com/2020/05/06/nurse-frightenedhospital-administrators-more-than-covid-19.

Zaka A et al. Jun 2020. "COVID-19 Pandemic as a Watershed Moment: A Call for Systematic Psychological Health Care for Frontline Medical Staff." *J Health Psychol*. 25(7):883–87. doi:10.1177/1359105320925148.

115 O'Halloran J (May 6, 2020).

116 Ibid.

117 Pattison N. Apr 2, 2020 "End-of-Life Decisions and Care in the Midst of a Global Coronavirus (COVID-19) Pandemic." *Intensive Crit Care Nurs*. 58:102862. doi:10.1016/j.iccn.2020.102862. Citing Vincent L et al. Nov 2019. "Burnout Syndrome in UK Intensive Care Unit Staff: Data from All Three Burnout Syndrome Domains and Across Professional Groups, Genders and Ages." *J. Intensive Care Soc*. 20(4):363–69. doi:10.1177/1751143719860391 and Colville G et al. Aug 2019. "A Survey of Moral Distress in Staff Working in Intensive Care in the UK." *J. Intensive Care Soc*. 20(3):196–203.

118 Emanuel E et al. May 28, 2020. "Fair Allocation of Scarce Medical Resources in the Time of Covid-19." *N Engl J Med*. 382:2049–55. doi:10.1056/NEJMsb2005114.

119 Litz B, Kerig P. Jun 2019. "Introduction to the Special Issue on Moral Injury: Conceptual Challenges, Methodological Issues, and Clinical Applications." *J Traumatic Stress*. 32(3):341–49.

120 Farnsworth J et al. Oct 2017. "A Functional Approach to Understanding and Treating Military-Related Moral Injury. *J Contextual Behav Sci*. 6(4):391–97. doi:10.1016/j.jcbs.2017.07.003.

Litz B et al. Dec 2009. "Moral Injury and Moral Repair in War Veterans: A Preliminary Model and Intervention Strategy." *Clin Psychol Rev*. 29:695–706. doi:10.1016/j.cpr.2009.07.003.

Litz B, Kerig P (Jun 2019).

Shay J. 2014. "Moral Injury." *Psychoanalytic Psychology*. 31(2):182–91. doi:10.1037/a0036090.

Varcoe C et al. (Mar 2012).

121 Litz B, Kerig P (Jun 2019).

122 Williamson et al. distinguish between moral injury and mental health issues, including PTSD. They acknowledge that potentially morally injurious events "can lead to negative thoughts about oneself or others (e.g., 'I am a monster' or 'my colleagues don't care about me') as well as deep feelings of shame, guilt or disgust." In their view, these types of thoughts and feelings may be partially responsible for psychological problems such as PTSD, depression, and anxiety, but moral injury in and of itself is not a psychological disorder. Williamson V et al. (Apr 2, 2020). Citing Williamson V et al. 2018. "Occupational Moral Injury and Mental Health: Systematic Review and Meta-Analysis." *The British Journal of Psychiatry.* 212(6):339-346.

123 Jewett C. (Nov 4, 2021).

Le Mignot S. Jun 23, 2020. "Suburban Nurse Gets COVID-19, Infects Her Family After Hospital Says Don't Wear Mask." *CBS Chicago*. **https://chicago.cbslocal.com/2020/06/23/suburban-nurse-gets-covid-19-infects-her-family-after-hospital-says-dont-wear-mask/.**

Worcester S. Jul 31, 2020. "Higher Death Rate in Cancer Patients with Nosocomial COVID-19." *Medscape*. **https://www.medscape.com/viewarticle/934977.**

124 Williamson V et al. (Apr 2, 2020). Citing Griffin B et al. Jun 2019. "Moral Injury: An Integrative Review." *J Trauma Stress*. 32: 350–62. doi:10.1002/jts.22362 and Williamson V et al. (Jan 9, 2020).

125 Mantri S et al. Jul 17, 2020. "Identifying Moral Injury in Healthcare Professionals: The Moral Injury Symptom Scale-HP." *J Relig Health*. doi:10.1007/s10943-020-01065-w.

Greenberg N et al. (Mar 26, 2020); Jannsen S (Apr 6, 2020); Stoycheva V (Apr 13, 2020); Williamson V et al. (Apr 2, 2020).

126 Williamson et al. (Apr 2, 2020).

127 See National Nurses United. 2021. "Nurse Staffing and Standards for Hospital Patient Safety and Quality Care Act." Fact Sheet. National Nurses United. **https://www.nationalnursesunited.org/sites/default/files/nnu/documents/0421_Ratios_Federal_FactSheet.pdf**.

128 Aiken L et al. 2010. "Implications of the California Nurse Staffing Mandate for Other States." *Health Services Research*. 45(4):204-21. **https://onlinelibrary.wiley.com/doi/10.1111/j.1475-6773.2010.01114.x**.

129 Ibid.

130 Harless D. 2019. "Reassessing the Labor Market Effects of California's Minimum Nurse Staffing Regulations." *Health Economics*. 28(10):1226-31. **https://onlinelibrary.wiley.com/doi/abs/10.1002/hec.3924**.

131 Leigh J et al. 2015. "California's Nurse-to-patient Ratio Law and Occupational Injury." *Int Arch Occup Environ Health*. 88(4):477-84. **https://pubmed.ncbi.nlm.nih.gov/25216822/**.

132 Spetz J. 2008. "Nurse Satisfaction and the Implementation of Minimum Nurse Staffing Regulations." *Policy Polit Nurs Pract*. 9(1):15-21. **https://pubmed.ncbi.nlm.nih.gov/18390479/**.

133 Shah M et al. 2021. "Prevalence of and Factors Associated with Nurse Burnout in the US." *JAMA Netw Open*. 4(2):e2036469. doi:10.1001/jamanetworkopen.2020.36469.

134 Han X et al. Oct 2021. "Alternative Approaches to Ensuring Adequate Nurse Staff: The Effect of State Legislation on Hospital Nurse Staffing." *Medical Care*, 59(10):S463-S470. **https://journals.lww.com/lww-medicalcare/Fulltext/2021/10001/Alternative_Approaches_to_Ensuring_Adequate_Nurse.11.aspx**. (Note that while the study correctly notes that California's RN-to-patient ratios statute allows for RN and licensed practical nurse staffing ratios, implementing regulations effectively permit only RNs to fulfill nurse staffing ratios because of limitations in licensed practical nurse scope of practice).

135 42 CFR §482.23(b).

136 Centers for Medicare & Medicaid Services. Feb 21, 2020. "State Operations Manual, Appendix A – Survey Protocol, Regulations and Interpretive Guidelines for Hospitals." U.S. Department of Health and Human Services. Rev. 200 at A-0392. **https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/downloads/som107ap_a_hospitals.pdf**.

137 For a detailed analysis of conflicts of interests of Medicare-approved Accrediting Organizations, see National Nurses United's comments to CMS's Request for Information on "Medicare Programs: Accrediting Organizations Conflict of Interest and Consulting Services; Request for Information," 83 Fed. Reg. 65,331 (Dec. 20, 2018). National Nurses United. Feb 2021. "NNU Comments, Medicare Program: Accrediting Organizations Conflict of Interest and Consulting Services; Request for Information." Comment ID CMS-2018-0158-0122, **https://www.regulations.gov/comment/CMS-2018-0158-0122**.

138 See Centers for Medicare & Medicaid Services. Nov 5, 2021. "Medicare and Medicaid Programs; Omnibus COVID1-9 Health Care Staff Vaccination." U.S. Department of Health and Human Services. Fed. Reg. 61,555-627.

139 See National Nurses United. "Injury to None..." (2021).

140 Occupational Safety and Health Act, 29 U.S.C. § 651.

141 29 U.S.C. § 655(a).

142 See World Health Organization. 2021. "Weekly Epidemiological Update on COVID-19 - 17 August 2021." World Health Organization. **https://www.who.int/publications/m/item/weekly-epidemiological-update-on-covid-19--17-august-2021**.

143 See National Nurses United. Nov. 3, 2021. NNU Letter to U.S. Secretary of Labor and Assistant Secretary of Labor for OSHA, **https://www.nationalnursesunited.org/sites/default/files/nnu/documents/NNU_Letter_to_DOL_Permanent_Health_Care_Covid-19_Standard_11032021.pdf**.

144 Ritchie H et al. 2021. "Coronavirus Pandemic (COVID-19)." **https://ourworldindata.org/covid-vaccinations. Citing Mathieu, E et al. 2021. "A Global Database of COVID-19 Vaccinations."** *Nat Hum Behav*.

Lal E. Jan 2, 2021. "Fragmented Health Systems in COVID-19: Rectifying the Misalignment Between Global Health Security and Universal Health Coverage." *The Lancet*. 397(10268):61-7. **https://www.thelancet.com/article/S0140-6736(20)32228-5/fulltext**.

145 See NNU Letter to U.S. Secretary of Labor and Assistant Secretary of Labor for OSHA (Nov. 3, 2021).

146 Under the Biden administration, as of November 7, 2021, federal OSHA received 3,794 complaints from workers and reported as having opened 493 inspections in response to complaints (13%). Occupational Safety and Health Administration. Nov 8, 2021. "COVID-19 Response Summary." U.S. Department of Labor. **https://www.osha.gov/enforcement/covid-19-data**.

147 Protecting the Right to Organize Act of 2021, S. 420, 117th Cong. (Sen. Murray); Protecting the Right to Organize Act of 2021, H.R. 842, 117th Cong. (Rep. Scott).

148 VA Office of the Inspector General. 2021. "OIG Determination of Veterans Health Administration's Occupational Staffing Shortages Fiscal Year 2021." Department of Veterans Affairs. **https://www.va.gov/oig/pubs/VAOIG-21-01357-271.pdf**.

149 See, e.g., Dube A et al. 2016. "Nurse Unions and Patient Outcomes." *ILR Rev.* 69(4):803–33. doi: 10.1177/0019793916644251.

Ash M, Seago J. 2004. "The Effect of Registered Nurses' Unions on Heart Attack Mortality." *ILR Rev*. 57(3):422–42. doi:10.1177/001979390405700306; and

Dean A et al. 2020. "Mortality Rates from COVID-19 Are Lower in Unionized Nursing Homes." *Health Affairs*. 39:11. doi:10.1377/hlthaff.2020.01011.

150 A hospital's commitment to labor/management partnership should not suffice to demonstrate a hospital's commitment to labor peace, as such a partnership should only occur once a union has been selected by hospital employees, to determine whether employees wish to establish such partnership through collective bargaining.

151 Definitive Healthcare. 2020. "2020 Trend Report: Breaking Down U.S. Hospital Payor Mixes" Definitive Healthcare. **https://www.definitivehc.com/resources/healthcare-insights/breaking-down-us-hospital-payor-mixes**.

152 Bureau of Labor Statistics. Mar 2021. "Employee Benefits in the United States, March 2021." U.S. Department of Labor. **https://www.bls.gov/ncs/ebs/benefits/2021/employee-benefits-in-the-united-states-march-2021.pdf**.

153 Ibid.

154 White House. Sep 7, 2015. "Executive Order: Establishing Paid Sick Leave for Federal Contractors." **https://obamawhitehouse.archives.gov/the-press-office/2015/09/08/executive-order-establishing-paid-sick-leave-federal-contractors**.

155 National Nurses United. "Deadly Shame..." (2020).

156 Ibid.

157 National Nurses United. May 2021. "Scientific Brief: Multiple Measures, Including Masks, Needed to Curb Covid-19." National Nurses United. **https://www.nationalnursesunited.org/sites/default/files/nnu/documents/0521_Covid19_H%26S_MultipleMeasures_ScientificBrief.pdf**.

158 20 U.S.C. § 1082(a)(6). Although this section is specific to the HEA Federal Family Education Loan Program (FFELP), the Education Secretary has long relied on this statutory authority to carry out all Direct Loan Programs under Title IV of the HEA, and Congress has acquiesced to such interpretation of the statute. For a more detailed analysis of the Education Secretary's authority to "compromise" federal educational debt, see the Letter from Legal Services Center of Harvard Law School To Senator Elizabeth Warren. Sept. 2020. "Cancelation of Federal Student Loan Debt." Available at **https://policymemos.hks.harvard.edu/links/letter-legal-services-ctr-harvard-law-school-sen-elizabeth-warren-re-cancelation**.

159 For example, see: Cox J et al. (Mar 18, 2020); Lee YJ (Apr 4, 2020); McFarling U (Apr 28, 2020).

160 See 5 CFR § 550.902 et seq.

161 5 U.S.C. § 5545(d).

162 5 Code Fed. Reg. Part 550, Subpart I, Appendix A.

163 The exception is the tuition-free nursing programs in public community colleges which would be a new program. Both the Biden administration and Congressional Democrats support two years of tuition-free community college. See, for example, in the House Build Back Better Act, House Committee on Labor and Education. 2021. Build Back Better Act: Investing in Students, Families, and Workers." Fact Sheet. **https://edlabor.house.gov/imo/media/doc/2021-09-09%20E&L%20BBB%20Mark%20Up%20Fact%20Sheet%202.pdf**; and

Biden's American Families Plan, White House Press Release. Apr 28, 2021. "FACT SHEET: The American Families Plan." **https://www.whitehouse.gov/briefing-room/statements-releases/2021/04/28/fact-sheet-the-american-families-plan/**.

NNU has long supported tuition-free education for all at public colleges and universities. For example, NNU is a long-time supporter of the Inclusive Prosperity Act introduced most recently in 2019 which would impose a small tax on stock market speculation to pay for social programs including free college tuition. National Nurses United. May 22, 2019. "RNs Applaud Reintroduction of Robin Hood Tax Act to Raise Money for Education, Health Care, and Vital Social Programs." National Nurses United. **https://www.nationalnursesunited.org/press/rns-applaud-reintroduction-robin-hood-tax-act-raise-money-education-health-care-and-vital**.

164 Health Resources & Services Administration. Feb 2021. "What is Shortage Designation?" U.S. Department of Health and Human Services. **https://bhw.hrsa.gov/workforce-shortage-areas/shortage-designation**.

Taylor J. 2019. "Racism, Inequality, and Health Care for African Americans." The Century Foundation. **https://tcf.org/content/report/racism-inequality-health-care-african-americans/**.

165 Probst J et al. Oct 2019. "Rural Registered Nurses: Educational Preparation, Workplace, and Salary." Rural and Minority Health Research Center. **https://www.sc.edu/study/colleges_schools/public_health/research/research_centers/sc_rural_health_research_center/documents/ruralregisterednurses.pdf**.

166 U.S. House of Representatives. Committee on Appropriations. Jul 19, 2021. "Report Together with Minority Views to Accompany HR. 4502." 117th Cong. **https://www.congress.gov/117/crpt/hrpt96/CRPT-117hrpt96.pdf**.

167 Health Resources and Services Administration. 2021. "Justification of Estimates for Appropriations Committees, Fiscal Year 2022." U.S. Department of Health and Human Services. **https://www.hrsa.gov/sites/default/files/hrsa/about/budget/budget-justification-fy2022.pdf**.

Health Resources and Services Administration. 2019. "Justification of Estimates for Appropriations Committees, Fiscal Year 2020." U.S. Department of Health and Human Services. **https://www.hrsa.gov/sites/default/files/hrsa/about/budget/budget-justification-fy2020.pdf**.

Health Resources and Services Administration. 2017. "Justification of Estimates for Appropriations Committees, Fiscal Year 2018." U.S. Department of Health and Human Services. **https://www.hrsa.gov/sites/default/files/hrsa/about/budget/budget-justification-2018.pdf**.

168 Health Resources and Services Administration. 2021. "Nurse Corps Scholarship Program, School Year 2021-2022, Application & Program Guidance." U.S. Department of Health and Human Services. **https://bhw.hrsa.gov/sites/default/files/bureau-health-workforce/funding/nursecorps-sp-guidance.pdf**.

169 Health Resources and Services Administration. 2021. "Nurse Corps Loan Repayment Program, Fiscal Year 2021, Application & Program Guidance." U.S. Department of Health and Human Services. **https://bhw.hrsa.gov/sites/default/files/bureau-health-workforce/funding/nursecorps-lrp-guidance.pdf**.

170 42 U.S.C. § 296m(a).

171 Health Resources and Services Administration. "Nurse Corps Scholarship Program..." (2021).

172 Health Resources and Services Administration. 2020. "Nurse Corps Loan Repayment and Scholarship Programs Report to Congress for Fiscal Year (FY) 2019." U.S. Department of Health and Human Services. **https://bhw.hrsa.gov/sites/default/files/bureau-health-workforce/about-us/reports-to-congress/nurse-corps-report-congress-fy19.pdf**.

173 Yoo B et al. 2016. "The Effect of Prior Healthcare Employment on the Wages of Registered Nurses." *BMC Health Services Research*. 16(1):1-12. doi:10.1186/s12913-016-1667-0.

174 American Association of Colleges of Nursing. Sep 2020. "Nurse Faculty Shortage." Fact Sheet. **https://www.aacnnursing.org/Portals/42/News/Factsheets/Faculty-Shortage-Factsheet.pdf**.

175 National Nurses United. "Deadly Shame..." (2020).

176 See NNU's sixth survey of RNs on Covid-19 which included the effects on nurses of stressors and mental health impacts of the pandemic. National Nurses United. Sep 27, 2021. "National Nurse Survey Reveals That Health Care Employers Need to Do More to Comply with OSHA Emergency Temporary Standard." National Nurses United. **https://www.nationalnursesunited.org/press/national-nurse-survey-reveals-health-care-employers-need-to-do-more-to-protect-workers**.


SAVE
Safe Staffing NOW
LIVES
California Nurses Association
National Nurses Organizing Committee
National Nurses United
RN
National Nurses United
www.NationalNursesUnited.org

RN Staffing Ratios:
A Necessary Solution to the
Patient Safety Crisis in U.S. Hospitals

National Nurses United

RN Staffing Ratios:
A Necessary Solution to the Patient Safety Crisis in U.S. Hospitals

There is a patient safety crisis in the United States. Every day it is estimated that 700 people die from preventable errors in their medical treatment or complications from those errors. Conservative estimates place the annual death toll from preventable errors, errors that should never occur in a safe hospital setting, at approximately 250,000 per year (Markary & Daniel, 2016). Other estimates place this figure at an alarming 400,000 deaths per year (Classen, et al., 2011). When counted, preventable death caused by medical error is the third leading cause of death in the United States (Markary & Daniel, 2016).

Registered nurses (RNs) across the nation have been sounding the alarm over this crisis for nearly two decades. Nurses have witnessed preventable death and disability daily at their patients' bedsides in hospitals big and small from coast to coast. Despite these warnings, hospitalized patients remain at risk and the consequences are alarming. The long-held perception of nurses that there simply are not enough nurses present to provide the care needed has been validated by dozens of studies. Nurses know that one of the most effective ways to protect patients is through safe and effective staffing. Yet, in 49 states there is no limit to the number of patients a nurse can be made to care for at one time and the safety crisis continues. Throughout years of advocacy, the nation's largest healthcare workforce has witnessed the implementation of failed policy initiatives, ill-conceived schemes to replace nurses with less skilled and unlicensed staff, and attempts to redesign healthcare with a focus on experimental technology that has introduced the risk for additional types of preventable medical error. As the death toll continues, nurses now urge policymakers to take much needed action to save lives and prevent needless harm by implementing evidence-based, mandatory, minimum nurse-to-patient ratios that are improved upon as individual patient needs warrant. Research from the last few decades has overwhelmingly shown that safe staffing levels and ratios help improve patient outcomes in mortality, adverse events, complications, failure to rescue, quality of care, costs, and length of stay. Safe staffing levels also help decrease nurse burnout and job dissatisfaction (Bae, Mark, & Fried, 2010). While California is the only state that has such a mandate, other states must follow to ensure continued quality patient care and nurse retention. The results of California's experience demonstrate that mandatory nurse-to-patient ratios increase patient safety and quality of care. Implementing this necessary protection is sound, life-saving healthcare policy.

☐ **Mandating minimum RN-to-patient ratios saves lives and improves patient-care outcomes.**

Lawfully mandated minimum nurse staffing levels at hospitals in California have been proven to save lives and enhance patient care. The California Nurses Association (CNA), an affiliate of the nation's largest organization of registered nurses, National Nurses United (NNU), championed the development, passage, and enforcement of the nation's first mandatory unit-specific nurse-to-patient ratios for acute-care hospitals. CNA drafted and sponsored the legislation that became California's nurse-to-patient ratios law and was heavily involved in California's three-year rulemaking process to develop the final numerical ratios. After over a decade since California implemented its nurse-to-patient ratios law, NNU's experience indisputably demonstrates that legislative and regulatory mandates on minimum nurse-to-patient staffing improves patient care and saves lives.

A seminal study from 2010 on the impact of California's ratios compared California hospitals' post-implementation of the state's minimum nurse-to-patient ratios law to hospitals in New Jersey and Pennsylvania and found, unsurprisingly, that if New Jersey and Pennsylvania matched California's ratios in medical surgical units, then New Jersey would have 13.9 percent fewer patient deaths and Pennsylvania 10.6 percent fewer deaths. Compared to states without ratios, the study found that California RNs reported having more time to spend with patients and that hospitals are more likely to have enough RNs on staff to provide quality patient care (Aiken L. H., 2010). In fact, the lead investigator of this study reported to the *San Francisco Chronicle* that "The differences between California and the other states are striking," said Linda Aiken. "Nurses in California take care of two fewer patients on average than nurses in Pennsylvania and New Jersey in general surgery. These differences lead to the prevention of literally thousands of deaths." (Ornstein, 2010)

The study also found that California nurses were significantly less likely than their New Jersey and Pennsylvania counterparts to report that workload causes them to miss changes in patient conditions (Aiken L. H., 2010). A more recent study from 2016 that compared hospitals in Pennsylvania, New Jersey, Florida, and California confirmed the earlier findings that California's improved nurse-to-patient staffing ratios improved patient care (McHugh M. D., et al., 2016). This study focused on hospitals that saw ten or more cardiac arrest events during the time under study and found that for every additional patient assigned to a nurse, the likelihood of a patient surviving cardiac arrest decreased by five percent per patient.

"Nurses in California take care of two fewer patients on average than nurses in Pennsylvania and New Jersey in general surgery. These differences lead to the prevention of literally thousands of deaths."

—Linda H. Aiken
Ph.D., FAAN, FRCN, RN
Director, Center for Health Outcomes and Policy Research
Senior Fellow, Leonard Davis Institute for Health Economics

The success of California's nurse-to-patient ratios law confirms what other more general studies on nurse staffing have long shown. For example, a 2013 meta-analysis of twenty-eight prior studies found a consistent relationship between higher RN staffing and lower hospital related mortality (Shekelle, 2013).

Similarly, a 2007 meta-study found that an increase in staffing equivalent to one full-time RN was associated with a 9 percent decrease in deaths in ICU patients, a 16 percent decrease in deaths in surgical patients, and a 6 percent decrease in death in medical patients (Kane, Shamilyan, Mueller, Duval, & Wilt, 2007). A 2006 study showed that if all hospitals increased RN staffing to match the best-staffed hospitals in the country, 5,000 in-hospital patient deaths and 60,000 adverse patient outcomes could be avoided (Needleman J., Buerhaus, Stewart, Zelevinsky, & Mattke, 2006). Yet another study found that increased RN staffing is associated with shorter patient stays, lower rates of urinary tract infections, lower rates of gastrointestinal bleeding, and lower rates of failure to rescue (Needleman J., Buerhaus, Mattke, Stewart, & Zelevinsky, 2002). As California's nurse-to-patient ratios law has demonstrated, minimum safe patient staffing levels unquestionably results in safe patient care and improved patient outcomes.

☐ **Inadequate RN staffing is dangerous for patients, increasing rates of infection, error, illness, and mortality.**

When nurses are assigned too many patients, they are at higher risk of preventable medical errors, avoidable complications, falls and injuries, pressure sores, increased length of stay, and readmissions. Empirical studies have confirmed time after time that understaffing of nurses and high nurse workloads is dangerous for our patients.

One study found that higher patient workloads of nurses has an independent and direct effect on quality of care, contributing to reduced patient safety, medical errors, patient falls, and unfinished nursing tasks (Kane, Shamilyan, Mueller, Duval, & Wilt, 2007).

Other studies have found comparable results. One found that understaffing in intensive care units increases risk of medical complications. Another study found that for each additional surgical patient in an RN's workload above the baseline nurse-to-patient ratio of 1:4, the likelihood of patient death within 30 days increases by 7 percent. And yet another study comparing California, New Jersey, and Pennsylvania found that each additional patient assigned to a nurse was associated with 7 percent higher risk of readmission for heart failure, 6 percent higher risk of readmission for pneumonia, and 9 percent higher risk of readmission for myocardial infarction (McHugh & Ma, 2013).

☐ **California's ratio law sets a floor and is not a "one-size-fits-all" standard by accounting for additional staffing to meet individual patients' needs.**

Contrary to the deceptive refrain by industry, laws establishing minimum nurse-to-patient staffing ratios are just that—floors on nurse-staffing levels that ensure safe patient care.

The ratio law as enacted is akin to other workplace and public health statutes and regulations that set baseline rules to protect the health and safety of both caregivers and the patients they serve. The ratio law demands merely what patients deserve—quality care when they seek healthcare at hospitals.

It is routine for the industry to respond to patient, nurse, and legislator calls for minimum safe nurse staffing laws with threats of staffing cuts, reduced hiring standards, or cuts to programs. As described above, however, these industry threats are merely a thinly veiled attempt by hospitals to protect their profits despite the harm to patients that results from inadequate RN staffing.

☐ **Nurse-to-patient ratios increase nurse autonomy and stress the professional judgment of the direct-care registered nurse.**

Nothing in the California minimum nurse-to-patient ratios law involves reduction in healthcare employer hiring standards or cuts in programs. Rather, the California minimum nurse-to-patient ratios law demands, *inter alia*, that

the individual care needs of each patient and the skill mix of healthcare staff be assessed by the assigned RN to determine whether circumstances require additional staffing above the minimum staffing ratios.

In California's experience implementing its mandatory minimum nurse-to-patient ratios law, these requirements were critical in the success of any minimum nurse-staffing law. In its lobbying against the California ratios, the industry repeatedly argued that hospitals would be "forced to compensate for the ratios by cutting other staff" (California Department of Health Care Services, 2003). Industry advancement of this argument that minimum staffing ratios would result in budget-driven staffing cuts was so prolific that the state's Department of Health Care Services directly addressed this issue in its Final Statement of Reasons in support of the ratio regulations, explaining that hospitals could not respond to the ratios by reducing overall staffing.[1] To ensure that reduction in overall staffing did not occur, the California law required that each hospital establish an acuity system "to determine the amount of nursing care needed by each unit, on each shift, and for each level of licensed and unlicensed staff." (California Department of Health Care Services, 2003)

☐ **Not just patient safety, the California RN staffing ratio law has improved nurses' health and safety**

A 2015 study, which examined occupational injury and illness rates before and after the California RN staffing ratio law was passed, showed what RNs already know—safer nurses means safer patients (Leigh, Markis, Losif, & Romano, 2015).

Researchers examined the rates of occupational injury and illness to registered nurses in California before and after the RN staffing ratio law was passed, looking at a range of years from 2000 to 2009. They compared this data to the occupational injury and illness rates for registered nurses in the other 49 states and D.C. that have not adopted minimum numerical staffing ratio laws. They found that the California RN staffing ratio law was associated with a 31.6% reduction in occupational injuries and illnesses among RNs working in hospitals in California.

☐ **California's ratios law demonstrates that compliance with minimum nurse-to-patient staffing laws is undoubtedly feasible, resulting in improved nursing work environments and hospital savings.**

California's success with implementation of its mandated minimum nurse-to-patient staffing ratios law belies industry arguments that there are not enough RNs to comply with mandated nurse-to-patient ratios. The comparative study of California after the implementation of the state's ratios law discussed above also found that California hospitals are in compliance with the ratios a super-majority of the time, just two years after the laws effective date. In fact, the study found that nurses in New Jersey and Pennsylvania had more patients than permitted by California's ratios as much as 81 percent of the time, depending on the unit, whereas California nurses are able to meet the ratios 81–94 percent of the time, depending on unit (Aiken L. H., 2010).

The comparative study of California to New Jersey and Pennsylvania also found that California's ratios have positively affected nurses' overall work environment and their corresponding ability to deliver patient care. The study went on to find that "[n]urse workloads in California hospitals in 2006, 2 years after the implementation of mandated nurse staffing ratios, were significantly lower than in New Jersey and Pennsylvania hospitals" (Aiken L. H., 2010). It also concluded that in medical and surgical units "where nurse recruitment and retention has long been difficult nationally, nurses in California on average care for over two fewer patients than nurses in New Jersey and 1.7 fewer patients than nurses in Pennsylvania" (Aiken L. H., 2010). Overall, compared to their nurse counterparts in New Jersey and Pennsylvania, nurses in California care for an average of one fewer patients and reported more favorable outcomes with respect to every work environment measure analyzed, including reasonable workload, adequate support staff, and enough RNs to provide quality patient care (Aiken L. H., 2010).

1 • A copy of the Final Statement of Reasons is attached to NNU's amicus brief in Oberlies v. Healey and available at: act.nationalnursesunited.org/page/-/files/graphics/SJC-12472AmicusBrief_opt.pdf

Other studies support these findings that RN staffing ratios mean safer RNs, who have more time to provide quality and safe care for their patients. These findings include:

- Nurses from units with low staffing and poor organizational climates were twice as likely as nurses on well-staffed and better organized units to report risk factors for needlestick injuries and near misses (Clarke, Sloane, & Aiken, 2002).
- An increased patient load per nurse was associated with significantly higher likelihood for neck, shoulder, and back musculoskeletal disorders (Lipscomb, Trinkoff, Brady, & Geiger-Brown, 2004).
- Risk for workplace violence injuries was twice as high for lower-staffed hospitals as compared to higher-staffed hospitals (Lee, Gerberich, Waller, Anderson, & McGovern).

In other words, the provision of safe and therapeutic patient care depends on RNs having safe patient workloads. Safe working conditions for nurses improves the quality of patient care.

A different survey of California nurses after the implementation of California's ratios law also found that California nurses reported significant improvements in working conditions and job satisfaction (Spetz, 2008). In short, the study demonstrates that California's ratios have resulted in California nurses caring for fewer patients at a time, positively impacting both the working environment and patient care.

In short, the study demonstrates that California's ratios have resulted in California nurses caring for fewer patients at a time, positively impacting both the working environment and patient care.

It is also important to note that the specter of outsized costs to industry is unfounded. Improved nurse job satisfaction and patient outcomes will reduce spending on temporary RNs and overtime costs and lower RN turnover (Bland-Jones, 2008). Ratios both attract and retain registered nurses. A recent Texas Center for Nursing Workforce Study on hospital nurse staffing vacancy and turnover rates for registered nurses showed RN turnover rates in California to be dramatically lower than states without ratios, such as Florida and Texas (Texas Center for Nursing Workforce Studies, 2016). According to Pricewaterhouse Coopers in its report, *What Works: Healing the Healthcare Staffing Shortage*, the cost of replacing one registered nurse is between $40,000–$85,000; given this it is evident that ratio implementation saves individual hospitals from both the expense and clinical disruption of a rapid turnover of its nursing staff. The report states that, "Every percentage point increase in nurse turnover costs an average hospital about $300,000 annually" (PricewaterhouseCoopers' Health Research Institute, 2007).

Improved nurse working environment, likewise, translates into savings from improved patient outcomes (Encinose & Hellinger, 2008) and shorter patient lengths of stay (Needleman J. , Buerhaus, Mattke, Stewart, & Zelevinsky, 2002). After the implementation of California's ratio law, nurses in California experienced burnout at significantly lower rates than those in New Jersey and Pennsylvania, and reported less job dissatisfaction (Aiken L. H., 2010). Both burnout and job dissatisfaction are precursors to turnover. A 2009 study estimated that adding 133,000 RNs to the U.S. hospital workforce—the number of RNs needed to increase nursing staff to the 75th percentile—would produce medical savings of $6.1 billion, not including the value of increased productivity when nurses help patients recover more quickly (Dall, 2009).

Combining medical savings with increased productivity, the addition of 133,000 RNs would result in an economic value of $57,700 for each of the additional RNs (Dall, 2009).

Mandatory minimum nurse-to-patient staffing levels are feasible, resulting in better nurse workloads and hospital savings from lower turnover and improved patient outcomes.

☐ Conclusion

Registered nurse staffing levels that facilitate safe, competent, therapeutic, and effective care is vital to the safety of patients in U.S. hospitals. Allowing hospitals to set staffing levels that are primarily budget driven, while not setting up a system of accountability, has created a threat to patient safety. Without necessary safeguards, hospitals may engage in nurse staffing cuts to save money, thereby adversely affecting patient outcomes (Aiken et al. 2014). The only way to ensure that all hospitals have safe staffing levels that are consistently adhered to is through mandated nurse-to-patient ratios. Currently, California is the only state in the United States that has mandated RN-to-patient ratios. As examined in detail above, research reveals that these ratios are associated with lower mortality, lower nurse burnout, and better nurse retention. Despite calls of alarm from the hospital industry, the ratios have not had an adverse impact on operations or quality of care. In fact, the evidence overwhelmingly demonstrates that in the face of an epidemic of preventable medical errors, RN staffing ratios must be implemented without delay to prevent disability and preserve thousands of lives.

Works Cited

- Aiken , L.; Sloane, D. M.; Bruyneel, L.; Van den Heede, K.; Grffiths, P.; Busse, R.; ... Sermeus, W. (2014). Nurse staffing and education and hospital mortality in nine European countries: a retrospective observational study. *Lancet, 38*(3), 1824-1830.
- Aiken, L. H. (2010). The California nurse staffing mandate: implications for other states. *LDI Issue Brief, 15*(4), 904-921.
- Bae, S. H.; Mark, B.; & Fried, B. (2010). Impact of nursing unit turnover on patient outcomes in hospitals. *Journal of Nursing Scholarship, 42*(1), 40-49.
- Bland-Jones, C. (2008). Revisiting Nurse Turnover Costs, Adjusting for Inflation. *Journal of Nursing Administration, 38*(1), 11-18.
- Boev, C. & Yinglin, X. (2015). Nurse-physician collaboration and hospital-acquired infections in critical care. *Critical Care Nurse, 35*(2), 66-72.

- California Department of Health Care Services. (2003). *Final Statement of Reasons.* Retrieved from act.nationalnursesunited.org/page/-/files/graphics/SJC-12472AmicusBrief_opt.pdf
- Clarke, S. P.; Sloane, D. M.; & Aiken, L. H. (2002). Effects of hospital staffing and organizational climate on needlestick injuries to nurses. *American Journal of Public Health, 92*(7), 1115-1119.
- Classen, D.; Resar, R.; Griffin, F.; Frederico, F.; Frankel, T.; Kimmel, N.; & Whittington, J. C. (2011, April). Global "trigger tool" shows that adverse events in hospitals may be ten times greater than previously measured. *Health Affairs, 30*(4), 581-589. doi: 10.1377/hlthaff.2011.0190
- Dall, T. (2009). The Economic Value of Professional Nursing. *Medical Care, 47*, 97-101.
- Duffield, C.; Diers, D.; O'Brien-Pallas, L.; Aisbett, C.; Roche, M.; King, M.; & Aisbett, K. (2011). Nursing staffing, nursing workload, the work environment and patient outcomes. *Applied Nursing Research, 24*(4), 244-255.
- Encinose, W. & Hellinger, F. (2008). The Impact of Medical Errors on Ninety-Day Costs and Outcomes: An Examination of Surgical Patients. *Health Services Research, 43*(6), 2067.
- Halwani, M.; Solaymani-Dodran, H.; Grundmann, C.; Coupland, C.; & Slack, R. (2006). Cross-transmission of nosocomial pathogens in an adult intensive care unit: incidence and risk factors. *Journal of Hospital Infection, 63*(1), 39-46.
- Harless, D. W. & Mark, B. A. (2010). Nurse staffing and quality of care with direct measurement of inpatient staffing. *Medical Care, 48*(7), 659-663.
- Hugonnet, S.; Villaveces, A.; & Pittet, D. (2007). Nurse staffing level and nosocomial infections: empirical evaluation of the case-crossover and case-time-control designs. *American Journal of Epidemiology, 165*(11), 1321-1327.
- Kane, R. L.; Shamilyan, T. A.; Mueller, C.; Duval, S.; & Wilt, T. J. (2007). The Association of Registered Nurse Staffing Levels and Patient Outcomes: Systematic Review and Meta-Analysis. *Medical Care, 45*(12), 1195-1204.
- Lee, S. S.; Gerberich, S. G.; Waller, L. A.; Anderson, A.; & McGovern, P. (n.d.).
- Leigh, J. P.; Markis, C. A.; Losif, A. M.; & Romano, P. S. (2015). California's nurse-to-patient ratio law and occupational injury. *Int Arch Occup Environ Health, 88*(4), 477-484.
- Lipscomb, J.; Trinkoff, A.; Brady, B.; & Geiger-Brown, J. (2004). Health care system changes and reported musculoskeletal disorders among registered nurses. *Am J Public Health*, 1431-1436.
- Markary, M. & Daniel, M. (2016, May). Medical error—the third leading cause of death in the U.S. *BMJ*(2139), 353-358. doi:10.1136/bmj.i2139
- McHugh, M. D.; & Ma, C. (2013). Hospital nursing and 30-day readmissions among Medicare patients with heart failure, acute myocardial infarction, and pneumonia. *Medical Care, 52*(1), 52-59.
- McHugh, M. D.; Rochman, M. F.; Sloane, D. M.; Berg, R. A.; Mancini, M. E.; Nadkarni, V. M.; ...Aiken, L. H. (2016). Better Nurse Staffing and Nurse Work Environments Associated With Increased Survival of In-Hospital Cardiac Arrest Patients. *Medical Care, 158*(5), 404-409.
- McHugh, M. D.; Rochman, M. F.; Sloane, D. M.; Berg, R. A.; Mancini, M. E.; Nadkarni, V. N.; ...Aiken , L. (2016). Better Nurse Staffing and Nurse Work Environments Associated with Increased survival of In-Hospital Cardiac Arrest Patients. *Medical Care , 54*(1), 74-80.
- Needleman , J.; Buerhaus, P.; Stewart, M.; Zelevinsky, K.; & Mattke, S. (2006). Nurse staffing in hospitals: is there a business case for quality? *Health Aff (Millwood), 25*(1), 204-211.
- Needleman, J.; Buerhaus, S.; Mattke, M.; Stewart, M., & Zelevinsky, K. (2002). Nurse-staffing levels and the quality of care in hospitals. *New England Journal of Medicine, 346*(22), 1715-1722.
- Ornstein, C. (2010, April 20). Study links nurse-patient ratio, mortality / Research shows death rate increases with workload, burnout. *San Francisco Chronicle*. Retrieved from www.sfgate.com/health/article/Study-links-nurse-patient-ratio-mortality-2780482.php
- Penoyer, D. A. (2010, July). Nurse staffing and patient outcomes in critical care: a concise review. *Critical Care, 38*(7), 1521-1528.
- PricewaterhouseCoopers' Health Research Institute. (2007). *What Works: healing the healthcare staffing shortage.* Retrieved from council.brandeis.edu/pdfs/2007/PwC%20Shortage%20Report.pdf
- Rafferty, A. M.; Clarke, S. P.; Coles, J.; Ball, J.; James, P.; McKee, M.; & Aiken, L. H. (2007). Outcomes of variation in hospital nurse staffing in English hospitals: cross-sectional analysis of survey data and discharge records. *International Journal of Nursing Studies, 44*(2), 175-182.
- Sakr, Y.; Moriera, C.; Rhodes, A.; Ferguson, N. D.; Kleinpell, R.; Pickkers, P.; ...Vincent, J. L. (2015). The impact of hospital and ICU organizational factors on outcome in critically ill patients: results from the Extended Prevalence of Infection in Intensive Care study. *Critical Care Medicine, 43*(3), 519-526.
- Shekelle, P. G. (2013). Nurse-patient ratios as a patient safety strategy: a systematic review. *Ann Intern Med, 158*(5), 404-409.

- Spetz, J. (2008). Nurse satisfaction and the implementation of minimum nurse staffing regulations. *Policy, Politics & Nursing Practice, 9*(1), 15-21.
- Stone, P. W.; Mooney-Kane, C.; Larsen, E. L.; Horan, T.; Glance, L. G.; Zwanziger, J.; & Dick, A. W. (2007). Nurse working conditions and patient safety outcomes. *Medical Care, 45*(6), 1-8.
- Texas Center for Nursing Workforce Studies. (2016). *Hospital Nurse Staffing Study: Vacancy and Turnover.* Retrieved from file:///C:/Users/Michelle/Downloads/2016HNSS_Vacancy-and-Turnover.pdf
- Tourangeau, A. E.; Doran, D. M.; McGillis-Hall, L.; O'Brien, P. L.; Pringle, D.; Tu, J. V.; & Cranley, L. A. (2007). Impact of hospital nursing care on 30-day mortality for acute medical patients. *Journal of Advanced Nursing, 57*(1), 32-44.
- Tubbs-Cooley, H. L.; Cimiotti, J. P.; Silber, J. H.; Sloane, D. M.; & Aiken, L. H. (2013). An observational study of nurse staffing ratios and hospital readmission among children admitted for common conditions. *BMJ Quality & Safety, 22*(9), 735-742. doi:10.1136/bmjqs-2012-001610

Deadly Shame

Redressing the Devaluation of Registered Nurse Labor Through Pandemic Equity

National Nurses United

December 2020

www.NationalNursesUnited.org

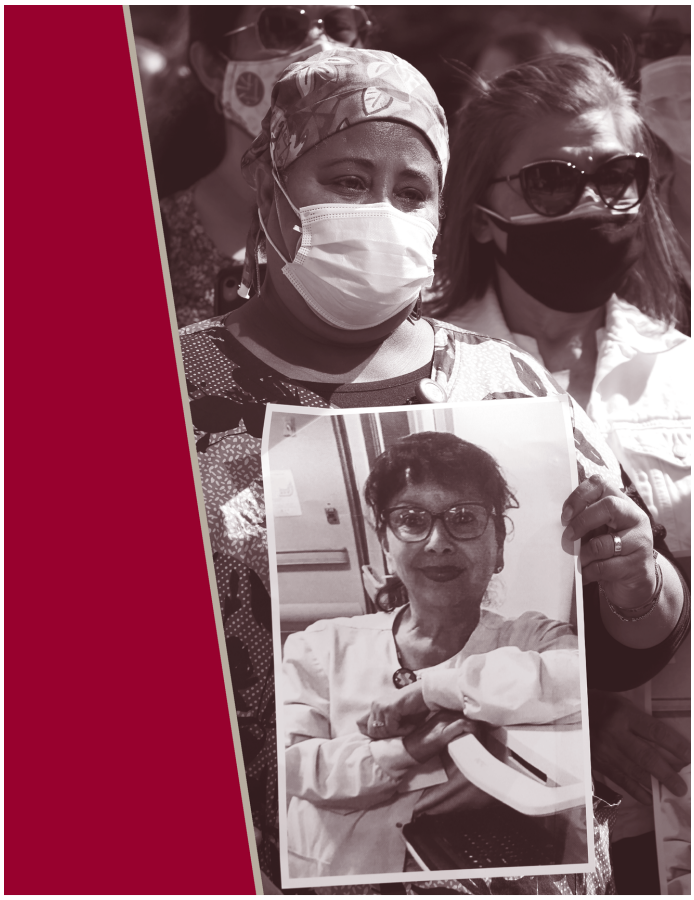


TABLE OF CONTENTS

EXECUTIVE SUMMARY

The Covid-19 crisis has exposed how employers, lawmakers, and society at large have systemically devalued work that provides life-sustaining care to human beings and society. This kind of labor or "care work" is the work of registered nurses (RNs). For nurses and other essential workers who are caring for society as we struggle to survive during the pandemic, employers and politicians alike have denied them protections that we know would reduce their risk of exposure to Covid-19. There is a jarring contradiction between the saccharine and excessive celebration of nurses as heroes for risking their and their families' lives during the pandemic and the utter disregard of nurse safety by health care corporations and all levels of government. The unprecedented public health crisis provides us with the opportunity not only to fight for the protections, pay, and dignity that registered nurses deserve but also to fight to transform a health care system and economic system that have systematically devalued their labor for generations. This paper argues for pandemic policies for nurses that recognize the value of their labor.

Part I begins with background on the gender-based devaluation of nurses' work through a "care penalty." Registered nurses, as part of a woman-dominated profession both in the United States and globally, have been undercompensated and devalued by both employers and government. Employers have failed to provide safe workplaces and other workplace protections to nurses while government has failed to fulfill its responsibility to ensure that protective workplace standards are created, maintained, and enforced. Part I then discusses how the United States' market-driven health care "system" prioritizes profit over providing care, and how this profit-seeking has manifested in the Covid-19 pandemic. The paper discusses recent survey results of National Nurses United (NNU), the largest union of registered nurses in the country, on registered nurses' experiences during the Covid-19 pandemic. NNU's survey results demonstrate the dramatic lack of protections from Covid-19 exposure being provided to nurses. Finally, Part I describes how nurses are challenging corporate health care and reversing the devaluation of their labor through unionization. The paper discusses how unionized nurses have been able to narrow gender and racial wage gaps through collective action and bargaining as well as how union nurses have won other legislative and regulatory protections for all nurses.

Part II discusses the risks that nurses working at the forefront of the pandemic are facing. It begins by examining the increased risk of exposure to SARS-CoV-2, the virus that causes Covid-19, among nurses and other health care workers. Although data is limited due to inadequate testing, lack of occupational information, and the high number of asymptomatic cases, it is clear that nurses and other health care workers have much higher rates of infection than the general public in the U.S. and abroad. Although this is certainly an undercount, as of November 13, 2020, at least 389,309 health care workers in the United States have been infected with SARS-CoV-2, including thousands of nurses, and at least 2,133 health care workers have died from Covid-19 and related complications, including 246 registered nurses.[1] This analysis found that among registered nurses who have died, 57.7 percent are nurses of color.[2] Filipinx nurses make up 52.2 percent and Black nurses make up 31.0 percent of the nurses of color who have died.[3] In contrast, only 24.1 percent of nurses in the U.S. are people of color,[4] while only 4.0 percent are Filipinx[5] and only 12.4 percent are Black.[6] Thus, there are significant racial and ethnic disparities among nurses who contract and perish from Covid-19.

Next, Part II discusses the physical effects of contracting Covid-19, which range from asymptomatic infection or mild illness to organ damage and long-term debilitating health issues to death. The Centers for Disease Control and Prevention (CDC) found that of confirmed Covid-19 cases in the United States, 14 percent have been hospitalized, 2 percent were admitted to an intensive care unit (ICU), and 5 percent died.[7] The likelihood of serious illness and death is strongly correlated with age and underlying health conditions. Based on their age, a large majority of nurses are at a higher risk for hospitalization, including severe illness requiring treatment in the ICU,[8] and more than a third face a higher risk of death.[9] Those with serious illness may require extensive rehabilitation and some may never fully recover. Even those with moderate illness may face a long recuperative period before regaining their health.

Part II then turns to a lengthy discussion of the moral distress and moral injury nurses face whether or not they contract Covid-19. It begins by defining the basic concepts of moral distress and moral injury as well as pandemic-related risk factors. Following ethicist Jameton, moral distress is defined as: "(a) the psychological distress of (b) being in a situation in which one is constrained from acting (c) on what one knows to be right"[10] but, following

Varcoe et al., constraint is construed broadly to include institutional influences as well as sociopolitical contexts.[11] Moral injury is defined as the deleterious long-term, emotional, psychological, behavioral, spiritual, and/or social effects that may result from potentially morally injurious events (PMIE) such as perpetrating or failing to prevent acts that transgress deeply held moral beliefs and expectations in a high-stakes environment. Risk factors for clinician moral injury during the Covid-19 pandemic include death of vulnerable persons, failure of leaders to take responsibility and to support staff, lack of preparation among staff for the emotional and psychological consequences of their decisions, concurrent exposure to other traumatic events, and lack of social support.[12] Experts expect significant numbers of clinicians to experience moral distress and, potentially, long-term moral injury.[13]

In unpacking the concept of moral injury, trauma experts Litz and Kerig explain that those who experience moral injury as a perpetrator of an immoral act or from failing to prevent an immoral act typically respond with internalizing emotions such as guilt and shame, whereas those who experience moral injury as a witness who was unable to prevent an immoral act typically respond with externalizing emotions such as anger and resentment.[14] It is crucial that those involved ascribe the blame to the responsible actor(s) and not inappropriately take responsibility for failing to prevent a transgression, if that was not in their power. Anger and resentment are more likely to lead to the collective action necessary to redress transgressions by authoritative leaders or institutions while emotions such as shame and guilt may lead to withdrawal. Importantly, redressing transgressions can eliminate future injury and may also heal the injured. Although this paper demonstrates that nurses are injured parties rather than perpetrators, they may internalize shame and guilt nevertheless, if they incorrectly believe that they should have prevented an event. It is paramount that nurses learn to process their emotions therapeutically and to ascribe blame to appropriate institutions and sociopolitical contexts — and then to fight together to change them.

Part II next applies the concepts of moral distress and moral injury, as well the risk factors for moral injury, to employers' failure to provide nurses sufficient personal protective equipment (PPE) and the failure of public health and safety agencies to hold employers accountable. The discussion begins with the battle nurses have waged for adequate respiratory protection. Although this is not their only need, respirators are essential to protecting nurses from Covid-19 infection. An N95 respirator is the minimum acceptable level of protection against airborne transmission of SARS-CoV-2. Yet many employers are withholding respirators they have in stock, arguing that respirators may be unavailable in the future because of problems with the supply chain.[15] The dearth of N95 respirators originates with employers' use of a "just-in-time" model that tightly manages inventory in order to maximize profits.[16] Employers' failure to stock sufficient PPE to manage unexpected but inevitable infectious disease outbreaks has left most nurses with insufficient access to the PPE they need to be safe from infection. Very few nurses, even those working directly with confirmed Covid-19 patients, have access to respirators on an as-needed basis. Those that do have ready access have generally had to fight for it.[17]

Rather than admitting their failure or seeking higher levels of protection, many employers, particularly hospitals,[18] have shored up their arguments for denying nurses respirators by claiming that respiratory protection is unnecessary except for specific surgical and aerosolizing procedures (e.g., intubation). They contend either that there is no evidence that the virus is airborne or that the evidence is inconclusive. Since the pandemic began, several studies strongly suggest that the virus is airborne,[19] thus making respirators critical to preventing infections among health care workers.[20] Regardless, given any uncertainty, employers should follow the precautionary principle, which holds that we ought not wait until we know for certain that something is harmful before action is taken to protect people's health.[21] Not doing so exemplifies their failure to recognize nurses' innate value as human beings. Finally, when nurses do contract Covid-19, employers often baselessly assert that nurses did not contract the virus on the job so as to avoid paying their workers' compensation claims.

Public health and safety agencies, complicit with employers, have also failed nurses.[22] At the beginning of the pandemic, the CDC called for health care workers to use respirators when entering the room of a suspected or confirmed Covid-19 patient.

Based on their age, a large majority of nurses are at a higher risk for hospitalization, including severe illness requiring treatment in the ICU, and more than a third face a higher risk of death.

However, concurrently with the urging of California and Washington state hospital associations,[23] the CDC began downgrading its guidance from airborne to droplet precautions and removed the requirement to provide health care workers respirators except for aerosol-generating procedures.[24] Otherwise, the CDC allowed the use of loose-fitting surgical masks.[25] Unconscionably, the CDC lowered its standards further to legitimate the use of homemade cloth masks such as "bandana[s.]"[26] As a result of this betrayal by health care employers and the CDC, many nurses caring for Covid-19 patients are at great risk of contracting Covid-19 as well as potentially infecting their patients.[27] The lack of respiratory protection may cause nurses moral distress and moral injury out of fear that they may be infecting their patients as one consequence of the moral distress and moral injury caused by "betrayal from leaders or trusted others[.]"[28] Indeed, many nurses have contracted Covid-19 and surely some have also infected their patients.

The inaction of the federal Occupational Safety and Health Administration (OSHA) provides another blatant example of a public health and safety agency siding with corporations over workers.[29] Health care employers — and, in particular, the American Hospital Association[30] — made it clear that they opposed including an OSHA infectious disease standard in federal Covid-19 relief legislation.[31] Thus far, all federal coronavirus bills have failed to include the requirement for an infectious disease standard. Although OSHA could act without federal legislation, it has yet to issue an emergency temporary standard despite receiving two petitions urging it to do so, one from NNU and another from the AFL-CIO.[32] OSHA also has failed to hold employers accountable under current regulations in the face of thousands of worker complaints filed with the agency.[33]

Part II then turns to the effects that the betrayal of employers and public health and safety agencies have on frontline nurses, particularly the failure to provide adequate PPE that leaves them vulnerable to Covid-19 infection. Foremost among these effects is the intense internal conflict and dissonance frontline nurses experience driven by the tension between caring for themselves and their families, on the one hand, and caring for their patients, on the other.[34] Although nurses fear contracting the virus themselves, particularly if their age or a medical condition make them more vulnerable to serious illness or death, for many, their greatest fear is infecting their families.[35] For some, the tension sheltering in place with their families and their calling to care for their patients will cause profound moral injury.[36]

To protect family members from viruses they may carry on their persons or clothing, nurses on the pandemic's front lines have adopted "meticulous cleansing rituals[.]"[37] Some avoid their families completely by sleeping in spare rooms, attics, or backyard tents, or not coming home at all.[38] Regardless of whether they sleep at home, many nurses are separated from their families for extended periods of time.[39] At a time when family members need to draw comfort from one another due to the stress and anxiety of the pandemic, as well as extended sheltering in place and physical distancing, nurses and their families often are deprived of this comfort. Additionally, family members have the added worry about their loved ones working on the pandemic's front lines. Thus, entire families are making tremendous sacrifices.

Nurses also may experience moral distress and moral injury from working under crisis standards of patient care. These standards include rationing care because of an insufficient number of qualified staff and rationing resources such as PPE, ICU beds, ventilators, and medications.[40] Among the most morally distressful and injurious aspects of crisis standards of patient care are agonizing triage decisions such as whether to withdraw life support from one person in order to provide it to another or to

relegate someone to palliative care who might have been saved if there had been sufficient resources. The need to implement crisis standards of patient care is driven by the lack of pandemic planning by hospitals and government, decades-long underfunding of public health infrastructure, and a privatized, market-based health care system — all exacerbated by the Trump administration's thoroughly botched pandemic response, aided and abetted by Congress and state government leaders.

The last subsection in Part II examines the mental health effects nurses on the pandemic's front lines may experience. As there are currently few studies of health care workers' experiences in the United States, this subsection draws on international studies on the current pandemic for the immediate effects and on international studies of prior outbreaks and epidemics for the long-term effects. The findings of international research mirror anecdotal reports from U.S. health care workers about their experiences working on the front lines of the pandemic.

The international studies on the Covid-19 pandemic, coming primarily from China, report high rates of psychological distress, anxiety, and depression among health care workers.[41] Several of these studies found that being a woman,[42] nurse,[43] or frontline caregiver,[44] categories that often overlap, were all associated with higher rates and intensity[45] of these negative mental health effects. Additional risk factors for adverse psychological impact include isolation,[46] separation from family,[47] and the lack of close family relationships,[48] as well as colleague infection, illness, or death.[49] Only one of the studies on the current pandemic considered in this paper surveyed for symptoms of post-traumatic stress disorder (PTSD) among health care workers, finding a massive incidence of nearly 50 percent.[50] Several studies suggested that PTSD was likely to emerge in the aftermath of the pandemic rather than in the acute stage.[51] Common, interrelated themes in the international research include fear of contracting Covid-19, fear of infecting family members, tension between caring for themselves and families versus going to work and taking care of patients, long hours and heavy workloads, lack of knowledge about the virus, and lack of treatment options.[52] Three studies identified fear of contracting Covid-19 and infecting family members as key sources of psychological distress. These fears were based, in large part, on a lack of PPE.[53]

A *JAMA Viewpoint* piece based on semistructured "listening sessions" with U.S. nurses, doctors, and other clinicians held early in the pandemic provides one of the few systematic analyses published to date concerning U.S. health care workers' experiences.[54] In this piece, U.S. health care workers echoed many of the same concerns as workers in other countries including access to appropriate PPE, exposure to Covid-19, and infecting family members. Similarly, an NNU survey found that among more than 8,000 nurses who work on a unit where Covid-19 patients or persons under investigation for Covid-19 might be placed, 49 percent responded that they are afraid of catching Covid-19 and 60 percent responded that they are afraid of infecting a family member.[55] They also reported experiencing higher levels of insomnia, anxiety, stress, and depression than they did before the pandemic.[56] These numbers accord well with international research and the anecdotal reports discussed in the subsection on moral distress and moral injury.

Although not emphasized in the current scientific literature, several studies of past Severe Acute Respiratory Syndrome (SARS) outbreaks found that health care worker stigmatization, often accompanied by isolation from family and community members, had negative mental health effects including anxiety,[57] distress,[58] and traumatic stress.[59] News reports demonstrate that U.S. health care workers are also experiencing stigmatization. The CDC identifies Asian Americans, Pacific Islanders, and Black Americans among those who may be subject to stigmatization and discrimination in the current pandemic.[60] Anti-Asian racism adds another layer of trauma, anxiety, and depression on nurses of Asian and Pacific Island descent who are overrepresented in the U.S. health care workforce,[61] particularly Filipinx and Filipinx-American nurses.[62] Similarly for Black health care workers, the anti-Black racism and

white supremacy espoused by President Trump, and rampant in communities around the country, compounds the already substantial detrimental mental health impact of providing patient care during the pandemic. Moreover, this comes on top of higher baseline levels of stress and emotional exhaustion Black health care workers may experience from defending their patients against racist attitudes and treatments from other health care workers.[63] Taken together, the cumulative effects are causing some Black health care workers to experience debilitating depression and trauma.[64]

Part II closes by noting that, for some, the cumulative effects of the pandemic were more than they could bear. Health care workers across several countries have taken their own lives. They include two U.S. health care workers, Lorna Breen, an emergency department doctor who worked in a New York City hospital and felt overwhelmed by the number of patients who were dead on arrival with Covid-19,[65] and John Mondello, a newly graduated, 23-year-old emergency medical technician suffering from anxiety because of the high volume of deaths he saw on the job.[66]

Part III discusses policies that employers and government can and should adopt both to mitigate the risks of exposure to Covid-19 that nurses face during the pandemic and to mitigate the impact that exposure to or contraction of Covid-19 has on nurses. It outlines principles that should be followed as nurses identify opportunities and formulate policy measures that may mitigate against the unequal risk borne by nurses and other essential workers during the Covid-19 pandemic. Part III sets forth as a principle that pandemic effects mitigation measures never substitute for employer and governmental obligations to implement pandemic risk mitigation measures. In other words, measures that may remedy the physical, mental, financial, or other effects of forced occupational exposure to Covid-19 must not be treated as trade-offs for measures that would prevent workplace exposure at the outset and would protect the lives and health of nurses, patients, and their families and communities.

Act now to mitigate both the risks and the effects of the Covid-19 pandemic on nurses and other health care workers.

Part III then discusses a number of policies that employers and government could implement to reduce the risk of nurses' exposure to Covid-19, including: (1) the provision of optimal PPE and the manufacture of sufficient volumes of PPE; (2) the government's enforcement of occupational safety and health standards on Covid-19 to ensure that nurses are effectively protected in the workplace from exposure to the virus and the creation of new standards where needed; (3) other Covid-19 risk mitigation measures inside health care facilities such as workplace disease surveillance, screening, and testing protocols as well as safe staffing in hospitals; (4) other Covid-19 risk mitigation measures outside health care facilities such as contact tracing, universal masking, and stay-at-home measures as well as antiretaliation protections for workers reporting unsafe working conditions during the pandemic; (5) employers and government ending crisis standards of care in health care facilities; and (6) guaranteed health care for all.

Part III also discusses policies that employers and government can implement to redress the impact of the pandemic on nurses, including: (1) the provision of paid sick, family, and quarantine leave; (2) presumptive eligibility for workers' compensation for nurses who are exposed to or who may contract pandemic Covid-19; (3) the provision of an essential worker pay differential; (4) other measures that could be provided by employers or government to mitigate against moral distress, moral injury, and trauma such as regular Covid-19 testing and surveillance of potential workplace exposures, open and continuous communication with nurses and other health care workers of potential workplace exposures; (5) support services to nurses such as crisis counseling and mental health services, free temporary housing, paid child and elder care; and (6) guaranteed health care for all.

Finally, Part III discusses how union nurses are taking collective action during the pandemic to demand that their employers and government fulfill their legal obligation to protect nurses and other health care workers as they care for Covid-19 patients. The paper describes how union nurses have won some of the mitigation policies described in this part at the facility level by taking action together, and the paper describes how nurses also continue to use their collective voice to demand that government at all levels establish and enforce workplace protections and benefits for nurses and other frontline workers.

Part IV offers summary comments and concluding remarks. It ends by calling on employers and government leaders at all levels to act now to mitigate both the risks and the effects of the Covid-19 pandemic on nurses and other health care workers.

PART I. BACKGROUND

NURSING, CRISIS, AND THE DEVALUATION OF CARE

It has taken an unprecedented pandemic and economic crisis for nurses, teachers, drivers, grocery workers, cooks, and other workers to finally be recognized as truly "essential workers" in society. The Covid-19 crisis has exposed how employers, lawmakers, and society at large have systemically devalued work that provides life-sustaining care to human beings and society. This kind of labor or "care work" is the work of registered nurses.

Registered nurses serve as the quintessential face of "frontline" workers in the "battle" against SARs-CoV-2, the novel coronavirus that causes the disease Covid-19, and, along with millions of other workers who have been deemed essential, they have been lauded as heroes. But even after more than nine months since the first confirmed case of Covid-19 reached the United States, nurses are still waiting for even the most basic protective gear to arrive and the most basic protective policies to be adopted to keep them, their families, and their patients safe. For nurses and other essential workers who are caring for society as we struggle to survive through the pandemic, employers and politicians alike have denied them protections that we know would reduce their risk of exposure to Covid-19. There is a jarring contradiction between the saccharine and excessive celebration of nurses as heroes for risking their and their families' lives during the pandemic and the utter disregard of nurse safety by health care corporations and all levels of government.

Although nurses and other essential workers are being treated in their workplaces as more expendable than a disposable mask, the newfound appreciation for the women, people of color, and immigrants who dominate essential care occupations is one of the potentially transformative opportunities created by the crisis. But it is unclear if the overwhelming laudation of nurses during the pandemic will ultimately amount to more than a fleeting celebration and whether it will last once the crisis has passed. What nurses and other care workers need even more than recognition and public adulation are safe and healthful workplaces, pay equity, and social supports. They need a permanent revaluation of their labor and lasting, material improvements in their lives.

Nurses and other care workers came to be devalued by society and our economic structure. Their collective labor, as a class of women workers, has been systematically rejected. The current public health crisis starkly has exposed the disparate values ascribed to different professions and has highlighted questions about why certain workers are afforded workplace protections and presumptive eligibility for workplace benefits while others are not. Yet, this unprecedented crisis provides us with the opportunity not only to fight for the protections, pay, and dignity that nurses deserve but also to fight to transform a health care industry and economic system that have systematically devalued their labor for generations.

The Care Penalty

Despite the rising economic importance of care work and, in particular, nursing, a "care penalty" continues to plague the work of nursing. Due to nursing's historical characterization as "women's work" — work that is seen as an extension of women's natural instincts and altruistic capacities — nurses have suffered from depressed wages and substandard, unsafe working conditions. The grueling, labor-intensive activity of caregiving that nurses provide is rarely politically and socially acknowledged as labor. The care penalty says: work in a caregiving profession like nursing and you will be penalized with unfair wages and unsafe working conditions because your labor will be weighed and measured as one part work and three parts an organic extension of the altruism that is expected of women as a cultural norm. As explained in this paper, nurses through unionization and union advocacy have been able to mitigate some of the care penalty for the profession, improving wages and working conditions.

The art and science of nursing has always been fundamentally necessary for maintaining healthy societies. Prior to the advent of capitalism, care work and healing knowledge were understood as essential components of the common good.[67] But it has never been easy work. The practice of healing has always required skill, knowledge, and acumen to confront both familiar and unknown diseases and injuries. As such, there is always a level of risk involved in treating complex health challenges, especially under unique situations. The health and safety of nurses is largely defined and determined by the degree to which measures are taken to mitigate known risks, including, but by no means limited to, adequate supplies and staffing, a safe working environment, and protective gear. It is in the interest of the whole of society to ensure that nurses have these resources.

Health care is now one of the fastest growing sectors in the world, creating a global demand for skilled nurses. Both in the U.S. and globally, care work has now become an explicit and dominant pillar of the global economy. Within this global health care workforce, nurses — along with midwives — make up the largest component, and an overwhelming majority of these workers globally are women — almost 3 in 4.[68] In the United States, 88.9 percent of registered nurses are women.[69] By comparison, although women dominate the nursing profession, almost all hospital administrators are men.[70] There is also a disproportionate number of women and women of color who are working in "frontline" occupations during the pandemic.[71]

Furthermore, despite the historically recent recognition by modern economic systems of nursing as work, gendered associations that posit care work as a social and moral obligation of women have systemically enabled employers to undercompensate and devalue the work of nurses. For example, under our corporate profit-seeking economic system, employers routinely put nurses at risk by failing to provide safe working conditions. Corporate regulatory capture, which is when government agencies are dominated by the interests of the industries such agencies are meant to regulate, has drastically curtailed government's ability to ensure that protective workplace standards are created, maintained, and enforced. Since the inception of the nursing profession, employers have consistently leveraged gendered expectations that women put the needs of others above their own as a means to shirk responsibility for creating safe workplaces. The lack of workplace benefits and protections for nurses reflects the feminized understanding of the nursing profession when compared to historically male-dominated or masculine professions like firefighting, building trades, and the police force. For example, firefighters and police officers in some jurisdictions are presumptively eligible for workers' compensation for a broad range of injuries and illnesses, and construction workers have numerous occupational safety and health standards on the books. Nurses have neither presumptive workers' compensation eligibility or adequate occupational safety and health standards.

As some nurse wages have risen through strong unions and collective bargaining, more men have entered the nursing profession. However, within the nursing profession itself, the labor of female nurses continues to be undervalued relative to their male nurse counterparts. With respect to wages, even though men make up less than 12 percent of registered nurses, a recent study examining the gender wage gap for registered nurses found that "male RNs outearned female RNs across settings, specialties, and positions" with male nurses making over $5,100 more than female nurses each year.[72] The same study found that although the gender wage gap has decreased over the past three decades in other occupations, the same is not true across the field of nursing.

For many nurses who are women, the care penalty is compounded by the additional time and labor spent on unpaid domestic work. Women typically spend more time on domestic work, including childcare and housework, than men, which significantly contributes to overall lower pay and stunted careers relative to their male counterparts. A 2017 study on the causes of the increasing gender wage gap with age concluded that about 40 percent of the increased gender wage gap was attributable to men's disproportionately greater ability to shift into higher paying establishments and 60 percent was attributable to women's lesser earning advancement within firms.[73] Importantly, this study found that increased family responsibility, measured comparing women who had ever-married with those who never-married, widened the gender wage gap for women over their careers.[74]

Exposing the System of Corporate Profit Over Care

The Covid-19 pandemic has exposed the United States' health care system for what it is — a profit-seeking paradigm that feigns to heal and care for society. As Phumzile Mlambo-Ngcuka, the United Nations Under-Secretary General and head of United Nations Women, wrote recently, the global pandemic "is a profound shock to our societies and economies, exposing the deficiencies of public and private arrangements that currently function only if women play multiple and unpaid roles."[75]

In particular, the corporate health system's persistent treatment of nurses and other health care workers as expendable stands in stark relief against our collective dependence on nurses to protect and guide society through this public health crisis. During the Covid-19 pandemic, the disposability of nurses under the current economic system can be plainly observed as health industry employers, among many other things, refuse to provide necessary personal protective equipment, mandate endless shifts, refuse sick or quarantine leave and pay, refuse Covid-19 tests for health care workers, demand nurses work even if they have been exposed to Covid-19, and discipline nurses who speak out about unsafe conditions for workers and their patients.

NNU, the largest union and professional association of bedside RNs in the country, conducted a survey

of over 21,200 nurses across the United States from all 50 states plus Washington, D.C. and three territories between April 15, 2020 and July 27, 2020, on RN experiences during the pandemic.[76] The results of NNU's survey are telling. NNU's survey results demonstrate the utter lack of protections from Covid-19 exposure being provided to nurses. Eighty-seven percent of nurses reported having to reuse at least one piece of single-use disposable PPE, like an N95 respirator or surgical mask, while caring for a suspected or confirmed Covid-19 patient.[77] This is troubling because many respirators are designed to be disposed after a single-use or single patient encounter. As such, reusing single-use PPE is a dangerous practice that can increase exposures to nurses, other staff, and patients. Additionally, 54 percent reported that their employer implemented so-called "decontamination" programs for single-use PPE, such as N95 respirators or surgical masks, between uses,[78] and 28 percent reported using "decontaminated" respirators with confirmed Covid-19 patients.[79] Employers are increasingly implementing PPE "decontamination" to save money, endangering nurses' lives in the process. These recent attempts to "decontaminate" these disposable respirators have not been shown to be safe or effective, can degrade the respirator so that it no longer offers protection, and some methods use chemicals that are toxic to breathe.[80]

The NNU survey results updated on July 27, 2020, also found that only 23 percent of respondent nurses had been tested for Covid-19 with the vast majority still not having been tested months into the pandemic.[81] Of those tested, more than 500 nurses tested positive.[82] Even worse, employers have required nurses to return to work after failing to provide them with appropriate PPE. Of the nurses who were exposed to Covid-19 after treating confirmed Covid-19 patients without appropriate PPE, 27 percent reported that they worked within 14 days of their exposure.[83] Additionally, 33 percent of nurses reported that their employer requires them to use their own sick leave, vacation, or paid time off if the nurse contracts Covid-19 or is exposed to the virus and needs to self-quarantine.[84]

When nurses demand proper workplace protection, presumptive eligibility for Covid-19 workers' compensation benefits, and other occupational safety measures or benefits during the pandemic, they are fighting, in essence, the continued imposition of a care "penalty" against the nursing profession. Moreover, as discussed in Part II, the stakes are high as thousands of nurses fall ill and too many die from the failure to protect them from exposure to Covid-19. The failure of both government and employers to provide adequate PPE to nurses and other essential workers during the pandemic and the continued refusal to grant nurses presumptive eligibility for workers' compensation claims for Covid-19 exposure and infection are the twin functions of nursing being largely female and a caregiving profession.

The health care industry was primed to capitalize on disasters such as the Covid-19 pandemic by reifying business practices that exploit nurse labor, and as such, the exploitative treatment of nurses during the pandemic should not come as a surprise. From the onset of the pandemic, health care industry employers have manipulated society's praise of nurses and other health care professionals as "heroes" during this public health crisis. By characterizing the care work of nursing as a "calling" and by minimizing the risk of infectious disease exposure as "what nurses signed up for," health industry employers clamor to justify unsafe and exploitative working conditions for nurses. For health care employers, the Covid-19 public health crisis has become the ready excuse to waive their legal duties as employers to protect nurses and other workers who provide essential life-sustaining labor. But the pandemic should be a reason to provide nurses and all our other essential workers more, not an excuse to provide them less.

Eighty-seven percent of nurses reported having to reuse at least one piece of single-use disposable PPE, like an N95 respirator or surgical mask, while caring for a suspected or confirmed Covid-19 patient.

During the pandemic, NNU nurses have used their collective voices and strength as a union to advocate for protections for all nurses, organized and unorganized, from exposure to Covid-19.

NURSES CHALLENGE CORPORATE HEALTH CARE AND THE DEVALUATION OF THEIR LABOR THROUGH UNIONIZATION

The collective power and workplace solidarity of a union mitigates against the persistent devaluation of nurses and the life-sustaining care that they provide. Unionization improves nurse wages and working conditions, diminishing the inequities that persist in the nursing profession overall and that have become stark during the SARS-CoV-2 pandemic. Through collective bargaining, backed by direct action such as marches on the boss and strikes as necessary, union workers are able to win contractual protections that not only address devalued wages and benefits for nurses but that also improve nurses' working conditions. With respect to pay and benefits, these collectively bargained protections include regular pay increases, seniority provisions, generous benefits, family and sick leave policies, and, importantly, grievance and arbitration procedures. Collectively bargained grievance and arbitration procedures provide union nurses with a more accessible and speedier venue, with access to union representation, in which to address discriminatory employer practices than enforcement agencies and the courts may provide. With respect to working conditions, union nurses through their collective bargaining strength have won safe nurse-to-patient staffing ratios, protections against workplace violence, and measures to ensure safe patient lifting procedures.

Union nurses, as with other unionized workers, receive a wage premium compared to their nonunion counterparts. According to the U.S. Bureau of Labor Statistics' Modeled Wage Estimates from 2018, the average hourly wage for nonunion registered nurses was $33.87 per hour[85] while the average hourly wage for union registered nurses was $46.88 or more than 38 percent more than nonunion nurse averages.[86] Even studies controlling for various variables, including type of health facility, geographic region, age, experience, position, and education, concluded that being in a union increases nurse wages, with estimated union wage premiums ranging between almost 8 percent to over 13 percent.[87] Importantly, analyzing union versus nonunion wages alone likely grossly underestimates the material benefit that union nurses can win through collective bargaining, including economic benefits such as paid sick leave and vacations, retirement benefits, disability benefits, and health insurance as well as improvements to their working conditions such as job security, safe staffing, safe patient

handling procedures, workplace violence prevention plans, infectious disease protections, and other health and safety protections.

Importantly, unionization can significantly diminish gender and racial wage gaps, although there is still some work to be done. Union representation significantly diminishes the wage gap between white and Black nurses. Nonunion Black nurses earn 70 cents less per hour than nonunion white nurses but, with collectively bargained for contract provisions such as automatic progression through the wage scale at set time intervals, unionized Black nurses earn 16 cents less per hour than unionized white nurses.[88] The results of one study, applying several control variables, demonstrated that in the nonunion setting Black RNs earned almost 8 percent less in average hourly wage than white RNs but, for unionized Black RNs, this wage penalty for nurses was minimal (0.85 percent) or, in other words, being in a union reduced the wage gap for Black nurses by almost 89 percent.[89] Additionally, union membership shrinks the wage gap for nonunion professional women, who earn 73 cents for each dollar earned by their male counterparts, while professional women in unions earn 83 cents for each dollar earned by their male counterparts.[90]

Economic analyses of nurse wages can also help quantify what union nurses already know — when they band together in a union, they have the collective strength to dismantle seemingly engrained wage inequities both within the nursing profession and in terms of devaluation of the nurses and care work. One analysis demonstrates a direct, positive relationship between nurse union density and nurse wages and shows that, as nurse union density has increased over time,[91] RN bargaining power over wages has increased over time. In other words, the more union nurses there are, the more power nurses have to collectively demand better wages. Moreover, this same study found that the bargaining power and lobbying efforts of the nurse union improved wages for both union and nonunion workers.

Through union power, registered nurses are improving both their working conditions and patient care. For example, unionized nurses across the country have contract guarantees of safe patient staffing ratios,[92] safe patient handling, and the right of nurses to use their professional judgement. NNU, the largest union of registered nurses in the country, also is fighting for gold-standard protections for all nurses, organized and unorganized. A key area of advocacy is sponsoring federal safe staffing laws to require mandatory minimum nurse-to-patient ratios.[93] Additionally, in 2019, NNU was instrumental in drafting a federal health care workplace violence prevention bill, the Workplace Violence Prevention for Health Care and Social Service Workers Act (H.R. 1309/S. 851), and ensuring that it passed the U.S. House with bipartisan support.[94] NNU nurses vow to keep fighting for workplace protections, like safe staffing ratios and workplace violence prevention standards, as well as other protections, until all nurses have these protections.[95] As discussed below in Part III, during the pandemic, NNU nurses have used their collective voices and strength as a union to advocate for protections for all nurses, organized and unorganized, from exposure to Covid-19.

PART II. EXPERIENCE OF NURSES ON THE FRONT LINES OF THE PANDEMIC

NURSES FACE HIGHER RISK OF EXPOSURE THAN BOTH OTHER HEALTH CARE WORKERS AND THE GENERAL PUBLIC

Given the entrenched devaluation of nurses' labor and care work, nurses are, unsurprisingly, facing an inordinate risk of exposure to Covid-19. Because of nurses' close and prolonged contact with Covid-19 patients and, as discussed below, the failure of employers and public health and safety agencies to ensure that they have optimal workplace protections from exposure to the virus, the rate of infection among nurses is higher than for other health care workers and higher still compared to the general population.

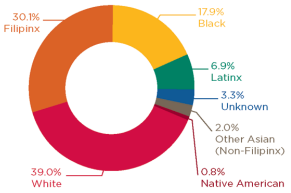
Due to the lack of testing and contract tracing, the failure to test many of those who have died, the high number of asymptomatic cases,[96] and the lack of reliable antibody tests,[97] there may never be a definitive answer regarding the actual number of persons who have contracted Covid-19. However, it is clear that, among those who are tested, workers employed in health care consistently constitute the greatest percentage of positive cases by occupation in the U.S. and around the world. In Italy, a staggering 20 percent of all health care workers responding to the Covid-19 pandemic were infected,[98] while a survey of nurses in Spain found that 32 percent of nurses who were tested for Covid-19 were positive.[99] Turning to Asia, one study of essential workers in Hong Kong, Japan, Singapore, Taiwan, Thailand, and Vietnam found that health care workers had the highest percentage of work-related cases among essential worker occupations at 22 percent.[100]

Similarly, the United States is experiencing a high percentage of health care workers among those testing positive for Covid-19. Based on reports from the first three months of the pandemic, the CDC found that, among a sample of 9,282 persons who tested positive and whose occupation was known, 19 percent were health care workers.[101] Of the health care workers who tested positive, 55 percent reported having exposure only in a health care setting.[102] This means that, in those cases where occupation was known, a minimum of 10.5 percent of positive cases were health care workers infected on the job, although they constitute only 5 percent of the U.S. population.[103] As many of the reports to the CDC failed to specify the number of cases that were health care workers, the percentage of health care workers who contracted the virus at work may be higher still.

Another study comparing Covid-19 rates among U.S. health care workers to rates among those working outside of health care found higher rates among health care workers, with 7.3 percent of health care workers testing positive compared to 0.4 percent of non–health care workers.[104] Moreover, it found that, among health care workers, nurses had both the highest rate of infections and the highest number of infections.[105] Specifically, nurses constituted 63 percent of cases, with rates of infection among nurses at 11.1 percent compared to rates of infection of 1.8 percent in attending physicians and 3.1 percent in residents and nonattending physicians.[106] The high rates of infection among nurses compared to other health care workers may also relate to the nature of their work. Registered nurses tend to interact with patients more intimately and for longer periods of time than most other health care workers.[107] Additionally, they frequently perform or participate in high-risk procedures and treatments — especially with Covid-19 patients, who may require cardiopulmonary resuscitation, intubation, extubation, and other high-risk procedures and treatments. Caring for patients with severe illness may also contribute to the higher rates of infection in health care workers. Several studies have found that the length of time that a patient sheds virus tends to increase with the severity of the illness.[108]

Although the nature of their work is a major factor in the high number of infections and deaths among health care workers, these infections and deaths could have been prevented with PPE that provides protection against contact, droplet, and airborne transmission. The utter failure of employers to provide the necessary PPE, coupled with the failure of public health and safety agencies, is the primary reason for their deaths. Remarking on the high rate of infections among health care workers in China, Ashish Jha, dean for global strategy at Harvard's T. H. Chan School of Public Health, confirmed that the lack of PPE was a key reason health care workers were infected there: "Our best understanding of the high rates of infection is because of a combination of inadequate PPEs and fatigue from long work hours and multiple shifts."[109] Similarly, health care workers in the U.S. are also working long hours with inadequate PPE. The Office of the Inspector General (OIG) for the U.S. Department of Health and Human Services, reporting on hospital response to the

Figure 1. **RN Covid Deaths by Race/ Ethnicity, as of Nov. 13, 2020**



pandemic, confirmed that "widespread shortages of PPE put staff and patients at risk[.]"[110]

Although this is certainly an undercount, as of November 13, 2020, at least 389,309 health care workers in the United States have been infected with SARS-CoV-2, the virus that causes Covid-19, including thousands of nurses, and at least 2,133 health care workers have died from Covid-19 and related complications, including 246 registered nurses.[111] This analysis found that among registered nurses who have died, 57.7 percent of the deaths are nurses of color This analysis found that among registered nurses who have died, 39.0 percent are white, 30.1 percent are Filipinx, 17.9 percent are Black, 6.9 percent are Latinx, 2.0 percent are other Asian (non-Filipinx), 0.8 percent are Native American, and 3.3 percent are unknown (Figure 1).[112] In sum, 57.7 percent of the deaths are among nurses of color.[113] Filipinx nurses make up 52.2 percent and Black nurses make up 31.0 percent of the nurses of color who have died.[114] In contrast, only 24.1 percent of nurses in the U.S. are people of color,[115] while only 4.0 percent are Filipinx[116] and only 12.4 percent are Black.[117] Thus, there are significant racial and ethnic disparities among nurses who contract Covid-19. Similarly, a study of frontline health care workers in the United States and the United Kingdom found that among these workers Black, Asian, Latinx, and other people of color contracted Covid-19 at nearly twice the rate of non-Hispanic white health care workers.[118] This same study found that non-white health care workers reported having to reuse PPE or having inadequate access to PPE at 1.5 times the rate of non-Hispanic white health care workers, even after adjusting for exposure to patients with Covid-19.[119] In a report focusing on U.S. Filipinx health care workers, *STAT* news explains their increased risk compared to other health care workers as due to their higher likelihood of working in hospital settings treating Covid-19 patients rather than other health care settings.[120] Finally, sociologist Adia Wingfield contends that Black nurses may be at higher risk based on their desire to give back to their communities and others in need as they are more likely to work in underfunded health care facilities serving communities where Covid-19 is ravaging Black, Latinx, low-income, and/or uninsured patients and lacking sufficient equipment and staff.[121] Although these explanations are all compatible, they suggest that better data reporting and further research are needed.

EFFECTS OF THE COVID-19 PANDEMIC ON NURSES

Nurses on the front lines of the Covid-19 pandemic work long hours with heavy workloads, often with little to no time for breaks. Massachusetts nurse Jaclyn O'Halloran remarks in a *STAT* opinion piece: "It is not uncommon for nurses to go all day without drinking water or eating because that would mean removing our protective gear."[122] Together, these conditions lead to physical and emotional exhaustion that leave nurses caring for Covid-19 patients more vulnerable to physical and mental health issues and long-term negative psychological effects. With sufficient PPE and staffing, however, these conditions could be ameliorated dramatically. As discussed below, both employers and public health and safety agencies have abandoned their responsibility to address these issues, much to the detriment of nurses and other health care workers.

The physical effects of Covid-19 infection range from asymptomatic infection or mild illness to organ damage and long-term debilitating health issues to death. The CDC found that of confirmed Covid-19 cases in the United States in the first four months of the pandemic, 14 percent have been hospitalized, 2 percent were admitted to the ICU, and 5 percent died.[123] As of November 30, 2020, Johns Hopkins puts the percentage of deaths among confirmed cases somewhat lower at 2.0 percent with the death rate per 100,000 residents at 81.57, the 7th highest rate worldwide.[124] In addition to the physical effects of Covid-19, nurses providing patient care during the pandemic often experience a range of other effects including moral distress and injury and mental health issues such as insomnia, psychological distress, depression, anxiety, and post-traumatic stress disorder. These effects may persist long after the pandemic ends.

Table 1. **Hospitalization, ICU Admission, and Case-Fatality Percentages for Reported Covid-19 Cases, by Age Group — United States, February 12 – March 16, 2020***

Age Group (years)	Hospitalization	ICU Admission	Case-Fatality
0–19	2.5	0.0	0.0
20–44	20.8	4.2	0.2
45–54	28.3	10.4	0.8
55–64	30.1	11.2	2.6
65–74	43.5	18.8	4.9
75–84	58.7	31.0	10.5
≥ 85	70.3	29.0	27.3
Total	**31.4**	**11.5**	**3.4**

**Number of persons hospitalized, admitted to ICU, or who died among total in age group with known hospitalization status, ICU admission status, or death.*

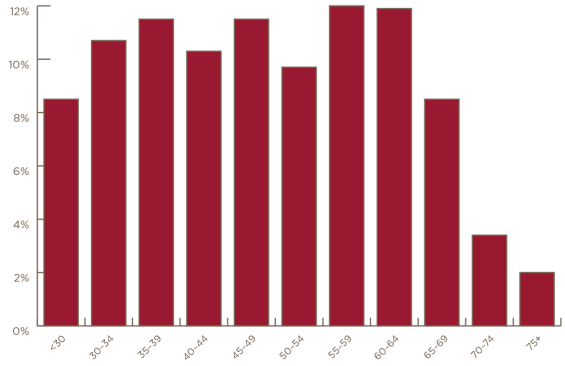
Physical Illness and Death

Contracting Covid-19 may result in life-threatening conditions including acute respiratory distress syndrome (ARDS); acute kidney injury; cardiac injury; stroke, blood clots, and embolisms; neurological involvement including dizziness and loss of the senses of smell and taste; and liver dysfunction.[125] Severe neurological issues, including encephalitis, meningitis, and Guillain-Barré syndrome, as well as neuropsychiatric illness such as encephalopathies with delirium and psychosis, have been associated with Covid-19 and are the subject of further research.[126] Psychological problems including insomnia, anxiety, depression, post-traumatic stress disorder, and obsessive-compulsive symptoms were also found in 55 percent of one group of patients in posthospitalization follow-up one month after discharge.[127] Finally, in this predominantly female workforce, the effects of Covid-19 on pregnancy are deeply troubling. Pregnant women not only may have a higher risk of infection because of pregnancy-related physiological changes,[128] but if they contract Covid-19, they are at higher risk of premature delivery,[129] serious illness,[130] and death.[131] Additionally, although intrauterine transmission of the virus from mother to fetus has not been documented definitively,[132] several cases of perinatal transmission have been documented.[133]

Even after the virus has cleared, recovery from severe illness can take far longer than the three to six weeks that the World Health Organization says is typical.[134] Some of those who are infected will likely never recover completely. Long-term effects of Covid-19 illness, particularly in patients that develop ARDS, include diminished lung capacity,[135] heart damage,[136] post-traumatic stress,[137] and post-intensive care syndrome[138] characterized by symptoms such as physical weakness and cognitive impairment. Patients with post-intensive care syndrome may require months of rehabilitation and some will never resume the lives they led prior to their illness.[139] Similarly, those experiencing acute kidney injury may suffer long-term damage requiring dialysis.[140] Although many recover their sense of smell and taste, there may be some for whom the loss is permanent.[141] Finally, even those who experience moderate illness may face an extended recovery period during which they experience extreme fatigue, difficulty concentrating, burning in the lungs, and dry cough.[142]

Serious illness and death correlate with older age and underlying health conditions including hypertension, diabetes mellitus, cardiovascular disease, and chronic obstructive pulmonary disease. However, Covid-19 can cause serious illness and death in people of all ages and those without underlying health conditions, including strokes in young adults[143] and multisystem inflammatory syndrome in young children and adolescents.[144] Among those who die, respiratory or organ failure are the primary causes.[145] Studies suggest that the high rates of respiratory failure may be caused by brainstem involvement.[146]

Figure 2. **Distribution of RNs by Age**



Like other analyses,[147] early data from the CDC on severe Covid-19 outcomes shows that hospitalization, ICU admission, and death all increase with age (Table 1).[148]

Based on their age, nearly 60 percent of all nurses are at much higher risk for hospitalization with 45.1 percent aged 45–64, and 13.9 percent aged 65 and older (Figure 2).[149] Likewise, they are at greater risk of severe illness requiring admission to the ICU. As Table 1 shows, among those in which the status was known, 10–11 percent of persons aged 45–64, 19 percent of persons aged 65–74, and 29–31 percent of persons aged 75 or older were admitted to the ICU.[150] Finally, nurses face a significant risk of death, with more than a third of nurses aged 55–74 (36 percent) and a small number of nurses aged 75 or older (2 percent).[151] Individuals in those age groups, as shown in Table 1, had a 3–5 percent risk of death and an 11 percent or higher risk of death, respectively.[152]

Nearly 60 percent of all nurses are at much higher risk for hospitalization.

Moral Distress and Moral Injury

As the discussion below will show, acute moral distress is widespread among nurses caring for Covid-19 patients and they are at significant risk of moral injury. This subsection begins by defining the basic concepts and risk factors of moral distress and moral injury. Next, it lays out the betrayal by health care employers and public health and safety agencies. It next examines how nurses experience moral distress in relation to themselves and their families. It then considers the effects on nurses of operating under crisis standards of patient care. It concludes with a summary table that lists the moral injury risk factors and provides illustrative examples of how they are being realized in the current pandemic.

Basic Concepts and Risk Factors

Andrew Jameton, a professor in ethics, introduced the concept of moral distress in 1984, stating: "Moral distress arises when one knows the right thing to do, but institutional constraints make it nearly impossible to pursue the right course of action."[153] He elaborated on this concept by breaking it down into three components: "(a) the psychological distress of (b) being in a situation in which one is constrained from acting (c) on what one knows to be right."[154] Varcoe et al. emphasize that nurses regularly act but may be unable to effect the changes that they seek because of structurally embedded power dynamics.[155] Based on this view, they broaden part (b) of the definition to include "influences beyond those that would be considered institutional to broader socio-political contexts[.]"[156] Following their position, the final definition used here construes constraints broadly to include institutional influences as well as constraints posed by sociopolitical contexts. Unfortunately, Varcoe et al. fail to discuss the role of collective action in challenging power dynamics. Although institutional and systemic constraints may be difficult, or even impossible, for individual nurses to overcome, nurses acting collectively have effectively countered systemic institutional and sociopolitical constraints.[157]

The concept of moral injury was coined by former U.S. Department of Veteran Affairs psychiatrist Jonathan Shay during his work with Vietnam veterans. Shay offers a three-part definition of moral injury as "(a) a betrayal of what's right (b) by someone who holds legitimate authority (e.g., in the military — a leader) (c) in a high stakes situation."[158] While Shay focuses on how military leaders' actions may cause moral injury in veterans, he acknowledges that veterans who themselves betray what's right may also experience moral injury. Similarly, Litz et al. consider both the case in which a military leader acts immorally and the case in which a veteran himself or herself acts immorally. Importantly, their definition incorporates both cases: "Potentially morally injurious events, such as perpetrating, failing to prevent, or bearing witness to acts that transgress deeply held moral beliefs and expectations may be deleterious in the long-term, emotionally, psychologically, behaviorally, spiritually, and socially (what we label as moral injury)."[159] Shay's definition captures the expectation that those in authority have an inherent moral obligation and the implicit betrayal[160] when they act immorally. Likewise, Litz et al.'s reference to "moral ... expectations" captures the notion of betrayal when someone in a position of authority violates the rights and duties inherent in that position but also allows for transgressions by those who do not hold positions of authority.[161] However, while "bearing witness" may result in moral injury to the witness, merely witnessing an act has no culpability in itself, and thus is not essential to the definition of moral injury.[162] Farnsworth et al. round out the definition by drawing on Shay's insight that an act must occur "in a high-stakes environment" to result in moral injury.[163] Taking these issues into consideration, the definition of moral injury used here is: the deleterious long-term, emotional, psychological, behavioral, spiritual, and/or social effects that may result from potentially morally injurious events such as perpetrating or failing to prevent acts that transgress deeply held moral beliefs and expectations in a high-stakes environment. Finally, in a 2019 article, Litz and Kerig introduce "a heuristic continuum of morally relevant life experiences and corresponding responses[.]"[164] Along this continuum, morally relevant life experiences progress from moral frustration to moral distress to moral injury and correspond to moral challenges, moral stressors, and morally injurious events, respectively.[165] In this view, moral distress may become moral injury if the events "involve grave threats to personal integrity or loss of life[.]"[166]

It is also important to consider how a person's role in a potentially morally injurious event affects their emotional response. In unpacking the concept of moral injury, trauma experts Litz and Kerig explain that those who experience moral injury as a perpetrator of an immoral act or from failing to prevent an immoral act typically respond with internalizing emotions such as guilt and shame, whereas those who experience moral injury as a witness who was unable to prevent an immoral act typically respond with externalizing emotions such as anger and resentment. It is crucial for those affected by a PMIE to ascribe the blame to the responsible actor(s) and not inappropriately take responsibility for failing to prevent a transgression if that was not in their power. Emotions such as anger and resentment[167] are more likely to lead to the collective action necessary to redress transgressions by authoritative

leaders or institutions while emotions such as shame and guilt may lead to withdrawal. Redressing transgressions can eliminate future injury and may also heal the injured. Although this paper demonstrates that nurses are not the perpetrators of moral injury, they may internalize shame and guilt nevertheless. It is paramount that they learn to process these emotions and ascribe blame to the appropriate institutions and sociopolitical contexts — and then to fight together to change them.

Trauma experts are currently exploring the relationship between moral injury and PTSD. Some trauma experts believe that further research is needed to determine whether moral injury and PTSD are distinct issues or whether moral injury may be a type of PTSD.[168] Shay contends that moral injury caused by betrayal from a person of authority typically meets the diagnostic criteria for PTSD.[169] Currently, moral injury has no formal diagnostic criteria in the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (DSM–5), though some PTSD criteria have moral implications. For example, criteria cluster D of the American Psychiatric Association's PTSD diagnostic criteria includes:

- "Persistent and exaggerated negative beliefs or expectations about oneself, others, or the world (e.g., 'I am bad,' 'No one can be trusted,' 'The world is completely dangerous,' 'My whole nervous system is permanently ruined')";
- "Persistent, distorted cognitions about the cause or consequences of the traumatic event(s) that lead the individual to blame himself/herself or others"; and
- "Persistent negative emotional state (e.g., fear, horror, anger, guilt, or shame)."[170]

Despite areas of disagreement, most trauma experts agree that, at the very least, individuals can experience both moral injury and PTSD.[171] This paper treats the two as distinct but related issues in order to draw out experiences that are unique to health care workers and this pandemic.

Although the concept of moral injury originated from work with war veterans, it has since been applied more broadly. Williamson et al. distinguish between moral injury and mental health issues, including PTSD. They acknowledge that potentially morally injurious events "can lead to negative thoughts about oneself or others (e.g., 'I am a monster' or 'my colleagues don't care about me') as well as deep feelings of shame, guilt or disgust."[172] In their view, these types of thoughts and feelings may be partially responsible for psychological problems such as PTSD, depression, and anxiety, but moral injury in and of itself is not a psychological disorder.[173] Williamson et al. outline risk factors for moral injury for health care providers during the Covid-19 pandemic as:

- Increased risk of moral injury if there is loss of life to a vulnerable person (e.g. child, woman, elderly);
- Increased risk of moral injury if leaders are perceived to not take responsibility for the event(s) and are unsupportive of staff;
- Increased risk of moral injury if staff feel unaware or unprepared for emotional/psychological consequences of decisions;
- Increased risk of moral injury if the PMIE occurs concurrently with exposure to other traumatic events (e.g. death of loved one); and
- Increased risk of moral injury if there is a lack of social support following the PMIE.[174]

Williamson et al. are not alone in their concern about the impact of the Covid-19 pandemic on frontline health care workers. Numerous experts expect significant numbers of these workers to experience moral distress and, potentially, long-term moral injury.[175]

It is paramount that nurses learn to process their emotions therapeutically and to ascribe blame to appropriate institutions and sociopolitical contexts — and then to fight together to change them.

Betrayal by Employers and Public Health and Safety Agencies

Both employers and public agencies are responsible for ensuring workers' health and safety. Employers have a legal duty to provide workers "employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to [their] employees[.]"[176] Public health and safety agencies, on the other hand, are supposed to provide regulatory standards on workplace protections and then to enforce such standards by virtue of their missions and, in some cases, because of statutory obligations. Both employers and public agencies have failed to meet their responsibilities.[177] Their failure goes beyond employers ignoring their legal obligations to workers and beyond public agencies shirking their duty to create and enforce legal standards. Moreover, employers have taken advantage of every opportunity presented during the pandemic to maximize profits. Public health and safety agencies have supported employers' efforts by lowering regulatory standards. Both employers and government agencies have gaslighted nurses by ignoring scientific evidence and denying on-the-ground facts outright.

The failure of employers to provide sufficient and appropriate PPE to nurses and other health care workers, although by no means the only workplace issue, continues to be a central concern. Appropriate PPE means that it prevents contact, droplet, and airborne transmission of SARS-CoV-2 and includes respiratory protection and head-to-toe garments that cover all exposed hair and skin.[178] As discussed in depth in the next section, much of the moral distress nurses are experiencing over their fear of contracting Covid-19 and exposing their families to the disease stems from a lack of appropriate PPE.[179] Having appropriate PPE is crucial and necessary for nurses to protect themselves and, in turn, protect their families, patients, and coworkers.

The failure of employers to provide sufficient and appropriate PPE to nurses and other health care workers, although by no means the only workplace issue, continues to be a central concern.

The problem of an insufficient supply of PPE originates with employers' use of a "just-in-time" model that tightly manages inventory in order to maximize profits.[180] The just-in-time approach may create shortages of needed supplies under ordinary circumstances; it has been disastrous during the Covid-19 pandemic.[181] Employers should stock sufficient PPE to manage unexpected, but inevitable, surges in infectious diseases. Instead, because employers have prioritized profits over preparedness, nurses now must choose between staying on the job and caring for their patients, who are also at risk of infection from nurses' lack of PPE, or staying home to protect themselves and their families.

Given the high rate of asymptomatic and pre-symptomatic transmission,[182] limited testing, and inadequate contact tracing, it is crucial for employers to provide appropriate PPE to all nurses who interact with patients, the public, or potentially contaminated items, surfaces, or air.[183] Yet very few nurses, even those working directly with confirmed Covid-19 patients, have access to appropriate PPE on an as-needed basis. Those who do have access as needed generally have had to fight for it.[184]

Many of the disputes between nurses and their employers center on respiratory protection.[185] Health care employers have equivocated on their reasons for failing to provide respiratory protection to their employees. Some, arguing that respirators may be unavailable in the future because of problems with the supply chain, are withholding respirators they have in stock.[186] Many employers, particularly hospitals,[187] have shored up their arguments by claiming that respiratory protection is unnecessary except for certain aerosolizing procedures (e.g., intubation). They contend either that there is no evidence that the virus is airborne or that the evidence is inconclusive. The crux of the dispute is whether the SARS-CoV-2 virus is transmitted primarily by droplets or whether it is airborne.[188] According to the dominant model, respiratory droplets come in two sizes, small and large. Large droplets fall to the ground, typically within six feet, because they are heavier than air.[189] Recent research establishes that the size of respiratory particles falls along a continuum. Additionally, it shows that smaller particles can remain suspended in air for hours and travel 23 to 27 feet.[190]

Since the pandemic began, several studies strongly suggest that the virus is airborne,[191] thus making respirators critical to preventing infections among health care workers.[192] On July 6, 2020, 239 scientists representing 32 countries published an open letter to the World Health Organization (WHO)

outlining the evidence for airborne transmission and urging them to adopt airborne precautions.[193] In the health care setting, this includes respirators.[194] Neither the WHO nor the CDC dispute that airborne precautions include an N95 respirator or higher,[195] though both stop short of stating that an N95 respirator or more protective respirator should be worn when caring for Covid-19 patients — except during aerosol-generating and certain surgical procedures.[196] However, the CDC recommends using an N95, if one is available.[197] Experts became hopeful on September 18, 2020, when the CDC recognized the potential for airborne transmission of the SARS-CoV-2 virus.[198] This hope quickly evaporated when the CDC reversed this change three days later, on September 21, stating it had been "posted in error" and that its policy on SARS-CoV-2 transmission was being updated.[199] The updated policy, posted on October 5, 2020,[200] is considerably weaker than the language posted on September 18, 2020. Although the policy recognizes that airborne transmission is possible, it downplays the evidence, suggesting that airborne transmission beyond six feet is uncommon.[201] The CDC also released a lengthier scientific brief on airborne transmission on October 5, 2020, that provides a bit more detail about cases in which transmission is known to have occurred "over long distances or times" including spaces an infected person has vacated.[202] The brief claims, however, that transmission in these cases happened "under special circumstances" such as in "enclosed spaces," under "prolonged exposure," or in places with "[i]nadequate ventilation or air handling."[203] Yet the brief fails to explain what makes these circumstances "special." For example, what makes a room a problematic enclosed space, how much time must elapse for an exposure to be prolonged, and what constitutes inadequate ventilation?[204] Consistent with downplaying the evidence of airborne transmission, the CDC has failed to update its policy on respiratory protection for Covid-19. It continues to require an N95 or higher respirator only for aerosol-generating and certain surgical procedures.[205] This flip-flop, along with others,[206] has prompted allegations that the Trump administration is pressuring the CDC to downplay the threat posed by the Covid-19 pandemic. Allegations of political interference are currently under review by the Government Accountability Office.[207]

Regardless of disputes about whether airborne transmission of SARS-CoV-2 is possible, given any uncertainty, employers should follow the precautionary principle, which holds that we ought not wait until we know for certain that something is harmful before action is taken to protect people's health.[208] Not doing so exemplifies employers' failure to recognize nurses' innate value as human beings. This is not lost on nurses. Registered nurse Jaclyn O'Halloran sums it up in an opinion piece titled "I'm a nurse in a Covid-19 unit. My hospital's leaders frighten me more than the virus": "The narrative is simple. Nursing, and nurses, are not valued. It's a shame, and maybe even a deadly shame, that hospital leaders don't care about nurses like we care for our patients."[209]

Employers' widespread disregard for health care workers' well-being throughout the course of the pandemic is undeniable. Nurses have faced disparagement and abuse from their employers for attempting to secure needed PPE by asking for donations on social media, speaking with the press, and holding public protests to expose their employers' failure. Some employers have responded by prohibiting workers from speaking out[210] and have fired workers for doing so.[211] Employers have gone so far as to prohibit nurses from bringing in their own respirators[212] and even "yanking masks off workers' faces[.]"[213] In cases where employers have capitulated to nurses' collective demands for respirators, they continue to disclaim that respirators are necessary to protect nurses from Covid-19 and assert that they are providing respirators to nurses to make them feel more comfortable, not to prevent exposure to the virus. This behavior by employers is a form of gaslighting that, unless challenged, can make nurses doubt their own experiences, expertise, and professional judgment about transmission of respiratory viruses and their need for PPE.[214] Employers have shifted blame and shame onto nurses by claiming that their unnecessary use of PPE means that others who need it will be denied its protection at some future date. This gaslighting, blame-shifting, and shaming may compound the initial moral injury caused by employers' reckless disregard for nurses' health and safety. While employers' disregard may cause outrage and anger among nurses that leads to collective workplace action — and results in winning the health and safety protections that they and their patients need — employers' indifference to the well-being of nurses may instead result in moral injury to nurses, particularly if they internalize their employers' devaluation as thoughts of their unworthiness and feelings of guilt and shame.

Complicit with employers, the CDC downgraded guidance that had called for the use of respirators.[215] An article published by the Center for Investigative Reporting (Center) documents the role the hospital industry played in the erosion of the CDC's guidance.[216] The Center shows that, early in the pandemic, hospital groups in California and Washington state urged their federal legislators to call on the CDC to change its analysis of Covid-19's mode of transmission and its PPE guidance.[217] On February 21, 2020, prior to the downgrade, CDC guidance

stated: "Use respiratory protection (i.e., a respirator) that is at least as protective as a fit-tested NIOSH-certified disposable N95 filtering facepiece respirator before entry into the patient room or care area."[218] On March 4, 2002, federal legislators from Washington state sent a letter to the CDC requesting that it eliminate airborne precautions except in aerosol-generating procedures.[219] Shortly thereafter, on March 10, 2020, the CDC downgraded its guidance from airborne to droplet precautions.[220] As part of this shift to weaker guidance, they removed the requirement to provide health care workers a respirator "that is at least as protective as a fit-tested NIOSH-certified disposable N95 filtering facepiece respirator before entry into the patient room or care area."[221] Instead they allowed loose-fitting facemasks, requiring respiratory protection only for limited surgical procedures and all aerosol-generating procedures.[222] Although the downgraded guidance refers to higher level respiratory protections as alternatives to an N95 respirator, it also states: "When available, respirators (instead of facemasks) are preferred; they should be prioritized for situations where respiratory protection is most important and the care of patients with pathogens requiring Airborne Precautions (e.g., tuberculosis, measles, varicella)."[223] In so doing, the CDC provided cover for health care employers to provide less protective (and less costly) surgical masks as an alternative. Unconscionably, the CDC lowered its standards further to legitimate the use of homemade masks such as "bandana[s]" on March 17, 2020.[224] The Center cites the California Hospital Association's letter to the California Congressional Delegation dated March 12, 2020, asking that the CDC make the change permanent: "We need the CDC to clearly, not conditionally, move from airborne to droplet precautions for patients and health care workers."[225] The hospital association offered as its rationale that this would "have multiple positive impacts on patient care, including allocating airborne isolation rooms properly and preserving limited supplies of personal protective equipment for health care workers caring for patients with airborne diseases."[226] The California Hospital Association's statement implies that Covid-19 is not an airborne disease.

The CDC has compounded its catastrophic move to weaken its PPE guidance by gaslighting nurses. As one of the top federal agencies charged with protecting public health, CDC's gaslighting is especially problematic. Like nurses' employers, the CDC has equivocated about whether its Covid-19 policies are driven by problems with the PPE supply chain or by scientific evidence about how the virus is transmitted.[227] The Center cites spokesperson Christina Spring from the CDC's National Institute for Occupational Safety and Health: "CDC's goal is to provide infection prevention control recommendations for healthcare personnel that are based on science, but also take into consideration the limited supply of N95 respirators in healthcare settings when it comes to making recommendations for personal protective equipment (PPE)."[228] In contrast, Spring also claimed that the CDC bases its recommendations on the best available science, but "we revise them as we learn more."[229] Yet, despite numerous research studies[230] and a letter from 239 scientists[231] suggesting that the virus is airborne,[232] the CDC has not upgraded its guidance to require airborne precautions. Rather, it continues to imply that the SARS-CoV-2 virus is not airborne.

The CDC referred to both the supply chain and the mode of transmission as the reasons for weakening its guidance on March 10:

> Based on local and regional situational analysis of PPE supplies, facemasks are an acceptable alternative when the supply chain of respirators cannot meet the demand. During this time, available respirators should be prioritized for procedures that are likely to generate respiratory aerosols, which would pose the highest exposure risk to HCP.
>
> ...
>
> **Mode of transmission:** Early reports suggest person-to-person transmission most commonly happens during close exposure to a person infected with COVID-19, primarily via respiratory droplets produced when the infected person coughs or sneezes. Droplets can land in the mouths, noses, or eyes of people who are nearby or possibly be inhaled into the lungs of those within close proximity. The contribution of small respirable particles, sometimes called aerosols or droplet nuclei, to close proximity transmission is currently uncertain. However, airborne transmission from person-to-person over long distances is unlikely.[233]

The webpage in the excerpt above now redirects to another webpage that does not refer to droplet transmission.[234] However, the webpage entitled "How COVID-19 Spreads" contends that the disease spreads primarily by droplets within six feet of an infected person though concedes that, "under certain conditions," airborne transmission is possible, as discussed above.[235] The CDC also implies that airborne precautions are unnecessary to prevent the spread of the SARS-CoV-2 virus when it states: "When available, respirators (instead of facemasks) are preferred; they should be prioritized for

situations where respiratory protection is most important and the care of patients with pathogens requiring Airborne Precautions (e.g., tuberculosis, measles, varicella)"[236] as well as in allowing loose-fitting facemasks as an "acceptable alternative" to a respirator except in limited circumstances.[237] In contrast, the CDC states that respirators should be used for confirmed and suspect cases of Covid-19 "[w]hen the supply chain is restored."[238] Thus, the CDC equivocates in its guidance rather than taking a firm stance that would protect both nurses and the public. The CDC's erosion of its standards at the bidding of health care corporations, compounded by denial and equivocation about the need for respiratory protection, serve as prime examples of "betrayal from leaders or trusted others" that is a risk factor for moral injury.[239]

Health care employers also made clear that they opposed the OSHA drafting an infectious disease standard. The American Hospital Association, representing hospitals that employ the bulk of nurses, vigorously opposed including a requirement for OSHA to issue an emergency temporary infectious disease standard in H.R. 6201, the Families First Coronavirus Response Act, and in H.R. 6800, the Health and Economic Recovery Omnibus Emergency Solutions Act, which would have required respiratory protection.[240] Similar to the statement above by the California Hospital Association, the American Hospital Association, in an alert lobbying against the inclusion of an infectious disease standard, claimed that "COVID-19 by all current evidence is droplet and contact spread, and thus does not require N95 respirators during routine interactions between providers and patients."[241] Final versions of subsequent coronavirus packages have failed to include the requirement for an infectious disease standard despite it being amended to include an enforcement discretion clause that would shield employers if it was "not feasible … to comply with a requirement of the standard[.]"[242]

As a result of this betrayal by health care employers and the CDC, some nurses caring for Covid-19 patients are provided only a surgical mask that is not replaced until it is "visibly soiled[.]"[243] Even worse, some have been forced to resort to bandanas when they were not provided even this minimal level of protection.[244] Others must reuse an N95 respirator, decontaminated or not, for up to a week.[245] Yet these practices are neither safe nor effective for nurses or their patients. Even if a nurse is working only with confirmed Covid-19 patients, there may be other potentially infectious materials that could be passed between patients.[246] In addition to moral injury caused by "betrayal from leaders or trusted others[,]"[247] reusing respirators that are meant to be changed between patients may cause nurses moral distress and moral injury out of fear that they may be infecting their patients.[248]

The OIG report, cited above, confirms nurses' claims that, in many hospitals, conditions are dire. The report documents the following "strategies" that hospitals are using, among others, to cope with their failure to stock sufficient respirators.

> Conservation strategies included reusing PPE, which is typically intended to be single-use. To reuse PPE, some hospitals reported using or exploring ultra-violet (UV) sterilization. Other hospitals reported bypassing some sanitation processes by having staff place industry masks over N95 masks so that the N95 mask could be reused. As one administrator characterized the situation, "We are throwing all of our PPE best practices out the window. That one will come back and bite us. It will take a long time for people to get back to doing best practices."
>
> …
>
> Instead of reusing medical-grade equipment, some hospitals reported resorting to non-medical-grade PPE such as construction masks or handmade masks and gowns, but were unsure about the guidelines for how to safely do it. For example, one hospital administrator noted that recommendations were not clear about whether cloth masks were good enough, stating, "But if that's what we have, that's what we're going to have to use." One hospital reported using 3D printing to manufacturer masks, while another hospital reported that its staff had made 500 face shields out of office supplies.[249]

Moreover, these excerpts demonstrate that hospital management knows that its practices place employees in danger.

Turning to federal OSHA, there is another blatant example of betrayal.[250] OSHA's mission statement says that it was "created … to ensure safe and healthful working conditions for working men and women by setting and enforcing standards[.]"[251] Yet it has done neither. First and foremost, the agency has failed to promulgate an infectious disease standard to protect employees from infectious diseases such as Covid-19 after initiating the rulemaking process in 2010.[252] Moreover, even when faced with

a national emergency, the agency has yet to issue an emergency temporary standard despite receiving two petitions, one from NNU and another from the AFL-CIO on behalf of 21 unions, urging it to do so.[253] Furthermore, thus far OSHA has failed to hold employers accountable under current regulations in the face of thousands of worker complaints filed with the agency.[254] Former Assistant Secretary of Labor for the U.S. Department of Labor David Michaels, who headed OSHA from 2009 to 2017, stated that a recent OSHA memo provides wide latitude in enforcement and indicates that it will cite only the most egregious offenders.[255] As of November 12, 2020, under the purview of the U.S. Department of Labor — currently headed by Eugene Scalia, a former corporate defense attorney who has fought against OSHA regulation and enforcement — federal OSHA has received 11,650 complaints and referrals,[256] but has inspected only 10 percent of them and only 2 percent of complaints and referrals have resulted in citations.[257] Overall, 201 employers have been fined a paltry $3.1 million, while untold numbers of workers have been infected on the job and some have died.[258]

When nurses contract Covid-19, employers have taken calculated steps to insist that nurses did not contract the virus on the job to deny nurses' claims for workers' compensation. As nurses became sick, hospital administrators began issuing blanket statements that most nurses' and other workers' infections would be "community acquired." By taking advantage of their own refusal to test nurses, other health care workers, and patients for Covid-19, employers have manufactured a situation where nurses will almost certainly lack the direct evidence of workplace exposure needed to prove a workers' compensation claim. In Boston, for example, Massachusetts General Hospital by late March had more than 40 employees who tested positive for Covid-19, but the hospital insisted that "most" contracted the virus somewhere other than the hospital, referring to "hospital data, our broad implementation of CDC-guided infection control procedures throughout the hospital, and the extent of community spread now ongoing in Massachusetts[.]"[259]

Effectively denying the science of asymptomatic transmission of Covid-19 and the possibility of transmission among coworkers, Massachusetts General Hospital and other Boston-area hospitals claimed that workers were infected in their lives away from work because infected workers did not work together in the same areas of the hospital or did not work directly with patients. Some hospitals took a different approach to deny that nurses contracted the virus because of failing occupational safety and health protections. In Michigan, for example, after 1,500 Beaumont Health system workers, including 500 nurses, were off the job because they had Covid-19 symptoms, administrators explicitly took advantage of local failures to control the virus's transmission by stating that it is impossible to know if workers contracted the illness at work, from their families, or in the community.[260] Similarly, in Detroit, Henry Ford had 872 of its symptomatic hospital workers test positive for coronavirus in early April but stated that it "do[es]n't differentiate between employees who are symptomatic that acquired COVID-19 in the community versus those that ... potentially were exposed to it at work because we can't differentiate from those employees."[261]

In a further act of betrayal, federal OSHA also is giving cover to employers' denials of nurses' workplace exposures to the virus by halting enforcement of laws requiring that health care employers record and report workplace exposures to illnesses. OSHA justified this rollback of recordkeeping requirements by broadly stating that health industry employers "may have difficulty making determinations about whether workers who contracted COVID-19 did so due to exposures at work" in areas where there is "ongoing community transmission." Functionally, areas where there is "ongoing community transmission"[262] includes the entire country because community transmission has not been stopped in any location.

As the discussion above has made clear, the conditions for moral injury are evident on the front lines of the Covid-19 pandemic. Table 2 outlines the different parts of our definition and then applies them to the experiences of nurses during the pandemic.

Clearly, the Covid-19 pandemic creates a "high-stakes environment" for nurses. As noted above, thousands of nurses have contracted Covid-19 and far too many have died. News reports document the infections of their patients and families.[263] This subsection also demonstrates that at least one of the risk factors for moral injury that Williamson et al. identify is being met: "Increased risk of moral injury if leaders are perceived to not take responsibility for the event(s) and are unsupportive of staff[.]"[264] Other risk factors identified by Williamson et al. also surely are being met during this pandemic.
Part II, "Ubiquitous Presence of Risk Factors Indicate a Strong Likelihood of Pervasive Moral Injury," provides a table with several examples of the form they are taking.

Caring for Themselves and Their Families

The previous subsection describes the transgressions of employers and public health and safety agencies. This subsection examines the effects that their transgressions have on nurses. Foremost among these effects are the intense internal conflict and dissonance nurses are experiencing during the Covid-19 pandemic driven by the tension between taking care of themselves or their families, on the one hand, and caring for their patients, on the other.[267] For some, the tension between sheltering in place with their families and their calling to care for their patients will lead to profound moral injury.[268] The lack of proper PPE, discussed in the previous subsection, plays a fundamental role in the conflict. Nurses fear contracting the virus themselves, particularly if their age or a medical condition make them more vulnerable to serious illness or death. In addition, motivated by love and concern, some worry about the effect that contracting Covid-19 would have on their children, spouses, and elderly family members who depend on them, especially if they succumb to the illness.[269] But for many, their greatest fear is infecting their families.[270] Similarly, family members frequently experience their own

Table 2. **Application of Definition to Moral Injury From Betrayal by Employers and Public Health and Safety**

Definition	Examples
"perpetrating or failing to prevent"	**"perpetrating"**[265] • Hospital management • CDC • OSHA **"failing to prevent"**[266] • OSHA
"acts that transgress"	**"acts that transgress"** • Denial of airborne transmission • Opposing the OSHA emergency temporary standard and other health and safety protections • Failure to supply appropriate PPE • Failure to establish appropriate health and safety guidelines and standards • Failure to enforce appropriate health and safety guidelines and standards
"deeply held moral beliefs and expectations"	**"beliefs"** • Human beings have innate value and should be protected from harm • People's health and lives should have priority over making a profit • It is wrong to lie by commission or omission **"expectations"** • Persons working within institutions charged with protecting public health and safety should ensure that they do so
"in a high-stakes environment"	**"high-stakes environment"** • Potential for workers to contract severe illness or die • Potential to infect patients, family, and coworkers

psychological distress and trauma related to the risks a nurse faces on the job, which in turn may exacerbate nurses' moral distress.[271] In a *New York Times* article titled "What Happens If You and Daddy Die," discussing the effects nurse exposure to the virus has on family members, the author notes that "[c]hildren of doctors and nurses have kept anguished journals, written parents goodbye letters and created detailed plans in case they never see their moms or dads again[.]"[272] Family members — especially children — may ask health care workers to leave their jobs.[273]

In contrast to being torn between staying home to care for their families and going to work, some Filipinx American and Filipinx immigrant workers continue to work long hours during the pandemic, increasing their risk of exposure to Covid-19, so that they can continue to send money to their families in the Philippines.[274] Gem Scorp, a Filipino nurse from New York working two jobs, explains the bind: "We are not afraid to die … [w]e are afraid that if we die, who will take care of our families here and back home?"[275] Scorp ultimately contracted Covid-19. Consistent with CDC guidance for mitigating staffing shortages,[276] he "follow[ed] hospital orders to work until critically ill."[277] While he ultimately ended up taking some time off because of the illness, he returned to work after his symptoms subsided.[278]

Many nurses' primary fear is that they may carry the disease home and infect their families — especially if any of their family members are in a high-risk group for serious illness or death.[279] Nurses and other health care workers have been speaking out about their fears for their families. For example, *The Washington Post* quotes a nurse from New York who describes her experience and that of her coworkers:

> "There is a tremendous amount of fear and guilt that we could bring this home and hurt people that we love," said Jane Gerencser, a nurse who has been working 12-hour shifts tending to coronavirus patients at a Westchester Medical Center Health Network hospital in New York state. "We have had colleagues who lived with elderly parents, who unfortunately have gotten sick and have had their parents get sick and passed."[280]

News reports and journal articles describe the extreme measures that health care workers, who know that they are at high risk of exposure to the virus, have taken to protect their families from being exposed unnecessarily. *The Washington Post* article cited above details "meticulous cleansing rituals" health care workers practice to protect family members from infection from virus on their persons or clothing.[281] An article from the *Journal of Medical Ethics* describes the "highly burdensome measures" one nurse takes to protect her family: "stripping naked" and depositing her clothes in the washer, wiping down all the surfaces she's touched with disinfectant, showering, disinfecting more surfaces — all before greeting her family.[282] Even after taking these precautions, she maintains her distance by staying "6 feet away from everyone [she] love[s.]"[283] Some avoid their families completely by using separate bathrooms; sleeping in spare rooms, attics, tents, or their cars; and eating their meals alone; while those who can afford it may opt for hotels or rent RVs.[284]

Regardless of whether they sleep at home, many nurses are separated from their families for extended periods of time.[285] Talisa Hardin, a nurse working on a unit for persons under investigation for Covid-19, testified about her experience before the Select Subcommittee on the Coronavirus Crisis of the House Oversight Committee:

> For me, the lack of protections in my unit have forced me to send my daughter away to live with my mother during the course of the pandemic. I don't want to pass this virus on to my daughter or my mother. … It has been more than five weeks since I last saw my daughter in person, and I don't know when I'll see her again. It has been deeply devastating for both of us to take these precautions. My daughter is so frustrated by the situation that she consistently asks me to come home and has recently asked me to quit my job. She follows the news, and she knows that I am at a heightened risk of contracting COVID-19 because my hospital is not giving me the protections I need. She is worried, she is scared, and she is experiencing separation anxiety.[286]

Many nurses have sent their children away voluntarily to protect them.[287] Others have been forced to give up custody of their children, at least temporarily, when noncustodial parents have taken them to court fearing their children might become infected with Covid-19.[288]

In some cases, nurses cannot meet the responsibilities to their families and also care for their patients. When nurses isolate to protect their families, others must assume the responsibilities they set aside and, for example, assist with childcare, homeschooling, meal preparation, and other household chores. This creates a hardship for both the nurses and their families at a time when the negative psychological impacts of the pandemic are increasing — particularly among health care workers but also in the

general population.[289] More importantly, at a time when family members need to draw comfort from one another due to the stress and anxiety of the pandemic and extended sheltering in place and physical distancing, nurses and their families often are deprived of this comfort. Additionally, family members have the added worry about their loved ones working on the pandemic's front lines. Thus, entire families are making tremendous sacrifices.

Crisis Standards of Patient Care, Rationing, and Unnecessary Death

Working under crisis standards of patient care, nurses face profound moral distress and injury as well as adverse mental health effects.[290] This section discusses the conditions that nurses are facing when they care for Covid-19 patients, particularly as shelter-in-place orders are eased or eliminated prematurely and infections and hospitalizations increase. These standards include rationing care — through insufficient numbers of staff or staffing with persons outside their scope of practice or areas of competency — and rationing resources such as PPE, ICU beds, ventilators, and medications.[291] As Covid-19 spreads, the number of patients explodes, and nurses increasingly fall ill with the disease and sometimes die.[292] Burdened by a heavy patient load, nurses must witness the suffering and needless death of patients who might have been saved by nursing care or medical intervention.

In a country that spends more money on health care than any other country in the world, these conditions could have been avoided or dramatically mitigated if health care employers and public health agencies had prioritized human needs and public health over profits. Moreover, the Trump administration — aided and abetted by Congress and state government leaders — has allowed resources in the national strategic stockpile to dwindle, squandered the lead time it had to formulate and execute an effective national pandemic response plan, failed to fully invoke the Defense Production Act of 1950 to manufacture needed supplies, and pressured states to open their economies and their schools prematurely. Their actions, and inaction, have all contributed to the lack of resources that has induced the implementation of crisis standards of patient care.[293]

The National Academies of Sciences, Engineering, and Medicine (NASEM) describes what health care workers may face during the Covid-19 pandemic under crisis standards of patient care:

> Catastrophic emergencies are by their very nature disruptive and life altering. They can have far-reaching societal impacts, even challenging fundamental assumptions about how we live and what we take for granted. Nowhere is this more evident than when medical facilities cannot deliver the usual level of care to all those who need medical attention. This is the current and likely future reality for many institutions caring for the growing numbers of patients with SARS-CoV-2 infection.[294]

More specifically, the Hastings Center's "Ethical Framework for Health Care Institutions and Guidelines for Institutional Ethics Services Responding to the Coronavirus Pandemic" ("Ethical Framework"), cited as a resource by NASEM, states:

> In a public health emergency featuring severe respiratory illness, triage decisions may have to be made about level of care (ICU vs. medical ward); initiation of life-sustaining treatment (including CPR and ventilation support); withdrawal of life-sustaining treatment; and referral to palliative (comfort-focused) care if life-sustaining treatment will not be initiated or is withdrawn.[295]

These decisions are driven by insufficient ICU beds, staffing, and medical resources, which, in turn, are driven by the lack of pandemic planning, decades-long underfunding of public health infrastructure, and a privatized, market-based health care system.

Under crisis standards of patient care, nurses face two challenges around staffing: (1) being assigned far more patients than they can care for safely and (2) working outside their areas of competency. Typically, staffing in an ICU requires one experienced ICU nurse to care for *no more than* two patients.[296] It is well established that patient mortality decreases with higher registered nurse-to-patient ratios.[297] Yet, with staffing for ICUs in short supply during the pandemic, some hospitals are reassigning nurses who work in other areas of the hospital to the ICU. The Society of Critical Care Medicine has created a crisis ICU staffing model for hospital use that "encourages hospitals to adopt a tiered staffing strategy in pandemic situations such as COVID-19[.]"[298] Its pandemic staffing model includes utilizing nurses who lack the experience to work on an ICU. Specifically, the Society of Critical Care Medicine's model calls for one experienced ICU nurse to oversee three non-ICU nurses who each care for two patients.[299] This attempt to divide the labor between an experienced ICU who oversees non-ICU nurses who then carry out nursing "tasks" is untenable. The knowledge needed to provide patient care cannot be divorced from the hands-on practice of providing the care — including directly assessing the patient's

needs; determining, planning for, and implementing needed care; and subsequent evaluation. In this model, the experienced ICU nurse must oversee three non-ICU nurses and, by proxy, six patients (two patients for each non-ICU nurse). The experienced ICU nurse may experience moral distress because she knows that they are at increased risk of death because she has more patients than she can care for safely.[300] Additionally, under these conditions, the experienced ICU nurse cannot engage in the full nursing process yet has a legal and ethical duty to ensure that patient care is being provided safely and effectively. In sum, the experienced ICU nurse knows what needs to be done but is unable to do it because of institutional and sociopolitical constraints. In contrast, the non-ICU nurse, lacking the necessary clinical knowledge and experience, may suffer moral distress out of fear of inadvertently harming a patient, thereby violating the most basic ethical principle of medicine and nursing: nonmaleficence (doing no harm).[301] Jaclyn O'Halloran describes the effect this has on nurses in the Massachusetts hospital where she works: "We are assigned to work in unfamiliar units, with patients who are outside our expertise, without any training. We're lost."[302] She adds that many nurses "are scared they'll make a deadly mistake."[303]

The potential for moral distress and injury caused by crisis standards of patient care goes beyond inadequate staffing and requiring nurses to practice outside of their areas of competency. The Institute of Medicine offers these examples of the painful measures that may be adopted under crisis standards of patient care for Covid-19 when ventilators, medications, or other supplies are insufficient to meet patient needs:

> **Crisis Triggers:**
>
> » Inadequate ventilators (or other life- sustaining technology) for all patients that require them
>
> » Inadequate supplies of medications or supplies that cannot be effectively conserved or substituted for without risk of disability or death without treatment
>
> **Tactics:**
>
> ...
>
> » Triage access to live-saving resources (ventilators, blood products, specific medications) and reallocate as required to meet demand according to state/regional consensus recommendations
>
> » Restrict medications to select indications[304]

These examples are key features of what NASEM identifies as the inability to "deliver the usual level of care to all those who need medical attention" found in health care facilities experiencing a surge of Covid-19 patients. In these circumstances, nurses will meet the definition of moral distress as they will "[know] the right thing to do" but it will be "impossible to pursue the right course of action[.]"[305] Academic research confirms the profound detrimental effect this may have on nurses during the Covid-19 pandemic: "Nurses' and other professional grief may also be compounded by being unable to care for families and patients as they might wish. Burnout, moral distress and moral injury has been identified as a significant issue in critical care professionals[.]"[306]

Finally, as implied by the discussion above, crisis standards of patient care require nurses to shift from a clinical care perspective and individual patient advocacy to a public health perspective that manages the care of the population.[307] In general, the population health approach may entail denying care to some individuals for the sake of others based on their age and/or other factors. This may rise to the level of removing a patient from a ventilator and giving it to another patient or shifting a patient from the ICU to palliative care.[308] The inability of nurses to provide needed care to patients who might have been saved may saddle them with a tremendous psychological and moral burden. The Hastings Center's "Ethical Framework" describes the inconsistency between clinical practice and population health as follows:

> A public health emergency, such as a surge of persons seeking health care as well as critically ill patients with COVID-19 or another severe respiratory illness, disrupts normal processes for supporting ethically sound patient care. Clinical care is patient-centered, with the ethical course of action aligned, as far as possible, with the preferences and values of the individual patient. ... Ensuring the health of the population, especially in an emergency, can require limitations on individual rights and preferences. [309]

The crisis standards of patient care put out by the California Department of Public Health, the most populous state in the country, provides an example of the tension between clinical practice and population health.[310] It oxymoronically states the ethical principle of autonomy can be disregarded while, at the same time, patients are "treated with dignity and compassion":[311] "Autonomy: respect for persons and their ability to make decisions for themselves may be overridden by decisions for the greater good; however, patients must still be treated with

Table 3. **Application of Definition to Moral Injury to Nurses Operating Under Crisis Standards of Patient Care**

Definition	Examples
"perpetrating or failing to prevent"	**"perpetrating"** • Hospital management • The Trump administration • Congress • State government leaders **"failing to prevent"** • Congress • State government leaders
"acts that transgress"	**"acts that transgress"** • Failure to stock sufficient PPE, ventilators, ICU beds, medications, and other supplies as well as failure to hire sufficient permanent staff • Failure to develop and implement a national or state plan • Failure to fully invoke the Defense Production Act to produce PPE, ventilators, medications, and other supplies • States opening their economies and/or schools prematurely
"deeply held moral beliefs and expectations"	**"beliefs"** • People's health and lives should have priority over making a profit **"expectations"** • Elected officials have an obligation to provide leadership in crisis situations
"in a high-stakes environment"	**"high-stakes environment"** • Global pandemic

dignity and compassion." A population health perspective that prescribes that, as the Hastings Center describes it, nurses abandon "preferences and values of the individual patient" is antithetical to nursing practice and nurses' duty of patient advocacy. This is particularly troublesome given the necessary restrictions on visitors as patients are left to die alone without family or friends at their side to comfort them.[312]

Crisis standards of patient care have tremendous potential to violate nurses' "deeply held moral beliefs and expectations" and cause profound moral injury. By way of summary, Table 3 outlines the different parts of the moral injury definition and then applies them to the experiences of nurses operating under crisis standards of patient care.

Ubiquitous Presence of Risk Factors Indicate a Strong Likelihood of Pervasive Moral Injury

As the discussion in this subsection makes clear, nurses on the front lines of the Covid-19 pandemic are experiencing extreme moral distress. It also shows that the risk factors for moral injury are ubiquitous, indicating the likelihood that moral distress will rise to the level of moral injury. Therefore, as the pandemic continues, we can expect nurses to sustain moral injury at alarming rates. The risk factors identified by Williamson et al. as well as examples of how nurses may experience moral injury as a result are summarized in Table 4 for ease of reference.[313]

Adverse Mental Health Effects

Given the timeframe of the pandemic in the U.S., little systematic research has been published regarding the mental health issues affecting health care workers treating Covid-19 patients here. Yet international research on the current pandemic and previous research on SARS mirror anecdotal reports from U.S. health care workers' experiences with Covid-19. Even at this late date, the United States could learn from these experiences and improve our response to the pandemic. Congressional testimony, news articles, editorials, and opinion pieces indicate that our health care workers currently are experiencing psychological distress, anxiety, symptoms of traumatic stress, and depression at high rates. Research on previous infectious disease outbreaks suggests that these mental health effects may persist long after the pandemic subsides.

International Research

Research on the adverse mental health effects of the Covid-19 pandemic on health care workers is just beginning to be published. The studies, coming primarily from China, report high rates of psychological distress, anxiety, and depression among health care workers.[314] As shown in Table 5, the numbers for health care workers range from 15.9 percent to 71.5 percent for distress, 13.0 percent to 44.6 percent for anxiety, 12.2 percent to 50.4 percent for depression, and 8.27 percent to 38.4 percent for insomnia. Several of the studies cited in Table 5 found that being a woman,[315] nurse,[316] or frontline caregiver[317] was associated with higher rates and intensity[318] of negative mental health effects. Common, interrelated themes among the studies in Table 5 include fear of contracting Covid-19, fear of infecting family members, tension between caring for themselves and families versus going to work and taking care of patients, long hours and heavy workloads, lack of knowledge about the virus, and lack of treatments.[319] In addition, the studies identified additional risk factors for adverse psychological impact including isolation,[320] separation from family,[321] and the lack of close family relationships,[322] as well as colleague infection, illness, and death.[323]

Clinicians are experiencing high rates of anxiety and depression, often because they lack the ability to treat their patients effectively. Clinicians have limited and rapidly changing clinical knowledge about SARS-CoV-2, a novel pathogen, and, without curative medications or treatments, they can only manage their patients' symptoms. These effects may be compounded for those clinicians called in to manage patient surges or to work outside their areas of competence.[324] Drawing on experiences from the SARS outbreaks,[325] Lin et al. describe the major psychological challenges encountered by frontline health care workers:

> Front-line personnel are responsible for curing and providing relief to patients, but many of these personnel in the outbreak did not have specialties or experience in caring for patients with such new infectious diseases. They had insufficient awareness of COVID-19, and there was no appropriate treatment for fighting the disease. Their mental health appeared to be affected more than that of the non-exposed personnel due to caring for the infected patients as well as facing concerns about becoming infected. ... Under these dangerous exposures, many staff members grew mentally and physically exhausted, which led to anxious and depressive emotional disturbances on the front-line clinicians.[326]

Table 4. **Moral Injury Risk Factor Definition with Examples**

Risk Factor	Examples
1. Increased risk of moral injury if there is loss of life to a vulnerable person (e.g., child, woman, elderly)	• A nurse with a child or a vulnerable family member or friend who dies, particularly if infected by the nurse or if the person dies without the nurse being present. • A nurse with a child or a vulnerable family member or friend who dies, particularly if infected by the nurse or if the person dies without the nurse being present. • A patient or coworker dies because a nurse wearing contaminated PPE infects them with Covid-19 or some other infectious disease. • A nurse caring for a vulnerable patient (e.g., a child or elderly person) who dies. This may be exacerbated if the patient dies alone or if the nurse is: ◦ Working in an area outside of the nurse's competency due to Covid-19 related staffing needs; or ◦ Working under crisis standards of patient care in which insufficient staffing, medical equipment, or supplies are a proximate cause of the death.
2. Increased risk of moral injury if leaders are perceived to not take responsibility for the event(s) and are unsupportive of staff [or are unsupportive of the people that they represent][127]	• A nurse working without appropriate health and safety protections (e.g., insufficient PPE or poor patient screening protocols) because: ◦ Employers and public health and safety agencies deny the need for airborne protections; ◦ The employer prioritizes profits over employee safety; ◦ Public health and safety agencies fail to provide appropriate guidelines and standards and/or to enforce those in effect; ◦ Government officials explicitly deny the health risks of the pandemic and disavow responsibility; or ◦ Federal government officials pressure state government officials to open the economy or schools, and they capitulate, leading to higher numbers of infections.
3. Increased risk of moral injury if staff feel unaware or unprepared for emotional/ psychological consequences of decisions	• A nurse working under crisis standards of patient care in which insufficient staffing, medical equipment, or supplies are a proximate cause of the death. • A nurse caring for patients who are separated from their families because of visitor restrictions.
4. Increased risk of moral injury if the PMIE occurs concurrently with exposure to other traumatic events (e.g., death of loved one)	• Self, family member, friend, or coworker develops a severe case of Covid-19. • A family member, coworker, or friend dies from Covid-19. • Racism, racial and police violence, or death in the society in which the nurse lives. • Nurses are experiencing stigma and discrimination in their communities.
5. Increased risk of moral injury if there is a lack of social support following the PMIE.	• Nurses are isolating from family and friends to avoid transmitting Covid-19. • Excessive workload keeps some nurses from accessing social support.

Table 5. **Overview of International Research on Adverse Mental Health Effects of Covid-19 Pandemic on Health Care Workers**

Study	Sample	Depression	Distress	Anxiety	Insomnia
Lai et al.[328]	1,257 health care workers (60.8 percent nurses) in 34 hospitals equipped with fever clinics or wards for patients with Covid-19 in multiple regions. Timeframe: Jan. 29, 2020 – Feb. 3, 2020.	50.4 percent	71.5 percent	44.6 percent	34.0 percent
Lin et al.[329]	636 medical professionals and 1,929 college students in a cross-section of cities. Timeframe: Feb. 4 – 16, 2020.	NA	Medical professionals: 36.5 percent College students: 16.0 percent	Medical professionals: 25.3 percent College students: 7.0 percent	NA
Liu et al.[330]	4,679 doctors and nurses from 348 hospitals in 31 provinces of mainland China. Timeframe: Feb. 17 – 24, 2020.	34.6 percent Nurses: 39.2 percent Doctors: 27.5 percent	Overall: 15.9 percent Nurses: 15.3 percent Doctors: 16.8 percent	Overall: 16.0 percent Nurses: 17.6 percent Doctors: 13.7 percent	NA
Rossi et al. [331]	1,379 health workers (34.2 percent) involved with the Covid-19 pandemic in Italy (percentages are for those with severe levels). Timeframe: March 27 – 31, 2020.	24.73 percent	NA	19.80 percent	8.27 percent
Zhang et al. [332]	Cross section of 2,182 Chinese subjects, 927 medical health workers (26.6 percent nurses), and 1,255 nonmedical health workers (percentages for medical professionals are on top). Timeframe: Feb. 19 – March 6, 2020.	12.2 percent vs 9.5 percent	Not measured separately; assumed as underlying mental health symptoms.	13.0 percent vs. 8.5 percent	38.4 percent vs. 30.5 percent

Unsurprisingly, Lin et al. found that health care providers with direct exposure to Covid-19 had higher rates of depression and more than twice the rate of anxiety than those that did not.[333]

Turning to the psychological distress central to moral distress and injury discussed above, three of the studies in Table 5 identify fear of contracting Covid-19 and infecting family members as key sources of psychological distress.[334] These fears were based, in large part, on a lack of PPE.[335] Lin et al., for example, found that those facing a severe shortage of PPE were 6.7 times more likely to experience psychological distress than those with access to an "adequate supply[.]"[336] Although Zhang et al did not measure psychological distress separately, they assumed that depression, anxiety, insomnia, and other mental health issues were expressions of underlying psychological distress.[337] Citing several sources,[338] they outline the following reasons for this distress: "the many difficulties of being safe at work, such as the initially insufficient understanding of the virus, the lack of prevention and control knowledge, the long-term workload, the high risk of exposure to patients with COVID-19, the shortage of medical protective equipment, the lack of getting rest, and the exposure to critical life events, such as death."[339] Only Rossi et al. surveyed for symptoms of PTSD, finding a massive incidence among health care workers of 49.38 percent.[340] Working on the pandemic's front line was the key risk factor. Three of the studies suggested that PTSD was likely to emerge in the aftermath of the pandemic rather than in the acute stage.[341]

Studies of health care workers in the first SARS outbreaks in late 2002 and 2003 found that they had similar issues and risk factors as health care workers are facing in the current Covid-19 pandemic.[342] Thus, research into these past outbreaks, as discussed

Table 6. **Comparison of Outcome Scores on Health Care Workers Who Treated SARS Patients With Health Care Workers Who Did Not Treat SARS Patients**

Outcome	Treated SARS Patients	Did Not Treat SARS Patients
High burnout	30.4 percent	19.2 percent
High psychological distress	44.9 percent	30.2 percent
High post-traumatic stress	13.8 percent	8.4 percent

below, offers some insight into how widespread or severe the long-term effects of Covid-19 may be. Based on this research, we should anticipate that nurses and other frontline health care workers will experience significant long-term adverse mental health effects.

Yet there are also differences between past SARS outbreaks and the Covid-19 pandemic. Given these differences, the Covid-19 pandemic likely will cause far more severe psychological repercussions than the earlier outbreaks. First, unlike the Covid-19 virus, SARS did not spread asymptomatically. This made it easier to identify and isolate SARS cases and easier to contain the spread of the disease.[343] Thus, the SARS outbreaks were more localized and of shorter duration.[344] In contrast, the ubiquity of Covid-19 increases the likelihood of exposure for health care workers and the high percentage of asymptomatic cases makes the danger invisible. Both features are likely to exacerbate distress and anxiety. Additionally, because Covid-19 is a pandemic, there is a higher likelihood that health care workers will face known risk factors for adverse mental health impacts such as a lack of appropriate PPE, working under crisis standards of patient care, working outside their areas of competence, long hours and heavy workloads, and the illness or death of a colleague.

Turning to the research on SARS outbreaks, studies found adverse mental effects in health care workers that included depression and anxiety,[345] post-traumatic stress,[346] psychological distress,[347] and burnout (emotional exhaustion).[348] For example, although a study by McAlonan et al. found similar stress levels among nurses, doctors, and health care assistants in both high-risk and low-risk settings during the SARS outbreak in 2003,[349] they found that one year after the outbreak the stress levels of health care workers in high-risk settings were not only much higher than the workers in the low-risk group, they were also higher than they had been during the outbreak.[350] In addition, workers in the high-risk group had higher depression, anxiety, and post-traumatic stress scores one year after the outbreak than those in the low-risk group.[351] The researchers opined that the health care workers' stress levels may have been lower during the outbreak because of their use of denial as a means of coping with anxiety and stress during the outbreak.[352] Similarly, a study by Maunder et al., surveyed two groups of Canadian health care workers (primarily nurses) 13 to 25 months (19 months median) after the SARS epidemic ended, one group from hospitals that treated SARS patients and the other group from hospitals that did not.[353] Using standardized measures of burnout, psychological distress, and post-traumatic stress, they found that much larger percentages of the group that treated SARS patients had high scores on all three measures compared to the group that did not (Table 6).[354]

Finally, although only one of the studies of the current pandemic discussed above mentions the negative impact of stigmatization on health care worker mental health,[355] several studies of past SARS outbreaks found that health care worker stigmatization, often accompanied by isolation from family and community members, had negative mental health effects including anxiety,[356] distress,[357] and traumatic stress.[358]

Studies suggested that PTSD was likely to emerge in the aftermath of the pandemic rather than in the acute stage.

Expectations for the United States

Health care workers around the world face similar issues such as a lack of knowledge about the SARS-CoV-2 virus, limited treatment options, a shortage of PPE, and overburdened health systems during surges. Because of the global similarities in responses to the pandemic, we can expect nurses around the world will suffer similar adverse mental health effects. Importantly, the federal government in the United States has denied the reality and severity of the pandemic and utterly failed to provide national leadership in responding to it. Thus, the lead time the United States had to prepare for Covid-19 was squandered and we were left with a patchwork of state and local responses — all of which fell short to differing degrees on testing, contract tracing, containment, and hospital capacity. Additionally, unlike most industrialized countries, the United States has a fragmented, profit-driven health care system that is rife with racial and ethnic disparities, leaves tens of millions uninsured and underinsured, and abandons economically disadvantaged rural and urban communities.[359] Because of these differences, health care workers in the U.S. are facing conditions, unnecessarily, that are far worse than in other industrialized countries.

Two surveys, one by the OIG directed at hospital management and one by NNU directed at nurses, document the widespread failure to provide appropriate PPE to health care workers, creating conditions perilous to their physical and mental health.[360] The OIG report on its survey captures candid statements by hospital employers that demonstrate their awareness of the effect the pandemic is having on their employees.

> Hospitals reported that fear of being infected, and uncertainties about the health and well-being of family members, were impacting morale and creating anxiety among staff. As one administrator put it, "The level of anxiety among staff is like nothing I've ever seen." Another hospital administrator explained that staff were carrying a heavy burden both professionally and personally. Professionally, staff were worried about the security of their jobs and the difficult choices they must make regarding their patients, such as who should get one of a limited number of tests. They also feared contracting the virus. At one hospital, a staff member who tested positive exposed others on staff, but the hospital did not have enough kits to test those exposed. Personally, staff were worried about spreading the virus to their family members and ensuring that their families were cared for, especially with schools and daycare centers being closed.[361]

Unfortunately, however, employers generally deny any culpability for their workers' distress or the disruption to their lives.

One of the few systematic analyses published to date concerning U.S. health care workers' experiences during the pandemic is a *JAMA Viewpoint* piece based on semistructured "listening sessions" with U.S. nurses, doctors, and other clinicians held early in the pandemic.[362] These listening sessions found concerns in U.S. health care workers that were similar to those found in health care workers from other countries. The top concerns expressed across

the sessions were access to appropriate PPE, exposure to Covid-19, infecting family members, access to testing, and whether their employer would support their basic needs if they contracted the disease. Additional concerns included the ability to manage childcare, meals, lodging, and transportation if required to work long hours; lack of information about Covid-19; and their ability to provide patient care if they were assigned duties outside their areas of competency. The top concerns identified in the listening sessions are tightly interwoven with health care worker access to PPE. PPE is the last line of defense in preventing exposure to Covid-19 for health care workers, carrying the infection to their families, and needing employer support if they contract the illness. As discussed above, because of the importance of appropriate PPE to preventing infection, the lack of PPE has been key to psychological distress and anxiety among health care workers in other countries.

An NNU survey during the reopening phase of the pandemic covering the period July 8–August 12, 2020, included questions on the emotional and mental health effects of the pandemic on nurses. Among more than 8,000 nurses who work on a unit where Covid-19 patients or persons under investigation for Covid-19 might be placed, less than a third think their employer is providing a safe workplace.[363] These same nurses reported the following issues:

- 49 percent are afraid of catching Covid-19;
- 60 percent are afraid of infecting a family member;
- 35 percent are having more difficulty sleeping than they did before the pandemic;
- 58 percent feel stressed more often than they did before the pandemic;
- 52 percent feel anxious more often than they did before the pandemic; and
- 39 percent feel sad or depressed more often than they did before the pandemic.[364]

These numbers accord well with international research, the anecdotal reports discussed in the subsection on moral distress and moral injury, and the deplorable conditions unique to the United States among industrialized countries.

Returning to the international research, several studies found that being a woman,[365] nurse,[366] or frontline caregiver[367] were all associated with higher rates and intensity[368] of negative mental health effects. In many cases, these characteristics overlap — both internationally and in the U.S. In the U.S., 89 percent of nurses are women.[369] Additionally, nurses are the largest occupational group in health care, constituting more than half of all health care providers,[370] and they are providing more prolonged frontline care in the pandemic than other practitioners.[371] It is not surprising that women, nurses, and frontline caregivers are more likely to experience psychological fallout given that gender norms and caregiving professions often involve tremendous emotional labor. This excerpt from a *TIME* magazine feature on the mental health crisis facing U.S. health care workers, quoting Natalie Jones, exemplifies emotional labor in action:

> She's trying to find ways to be compassionate where she can — last week, she passed on a message from a patient's wife just before he died: "That they love him, and it's O.K. to go." But even simply carrying a message of such emotional weight can take a toll.
>
> "We carry that burden for the families, too," says Jones, who's having difficultly [sic] sleeping without nightmares. "And we understand it's so difficult that they can't be there. And that hurts us too. As nurses, we're healers, and we're compassionate. It hits very close to home for us as well."[372]

This statement from Jones — a woman, nurse, and frontline caregiver in the ICU — illustrates the toll that caring for Covid-19 patients takes on health care workers' mental health in part because they must stand in for family members who are not allowed to visit.[373]

As discussed above regarding past SARS outbreaks, the CDC warns that fear and anxiety as well as a desire to ascribe blame can lead to stigmatization of health care workers and may result in rejection; denial of health care, education, housing, or employment; verbal abuse; and physical violence.[374] Media reports document that U.S. health care workers are experiencing many of these things.[375] Examples include nurses whose tires were slashed after an event recognizing the hard work of health care workers in a New York hospital by paramedics, firefighters, and police officers;[376] also in New York, hospital staff were spat on and verbally abused;[377] an assailant attacked a nurse in Oklahoma, claiming the nurse was exposing the community to Covid-19;[378] nurses in Hawaii report being "shunned" at stores and restaurants and having things thrown at them;[379] and nurses in California, Hawaii, Missouri, Nevada, and New Hampshire were evicted or denied lodging.[380]

In addition to health care providers and other groups, the CDC identifies Asian Americans, Pacific

Islanders, and Black Americans among those who may be subject to stigmatization coupled with discrimination.[381] Many Black and Asian Americans report that this is their experience.[382] The CDC's description of ways that "[c]ommunity leaders … can help prevent stigma" makes clear why Black, Asian American, Pacific Islanders, and other groups are experiencing stigmatization.[383] They include:

- Speaking out against negative behaviors and statements, including those on social media.
- Making sure that images used in communications show diverse communities and do not reinforce stereotypes.
- Using media channels, including news media and social media, to speak out against stereotyping groups of people who experience stigma because of COVID-19.[384]

These recommendations contrast sharply with President Trump's repeated racist references to Covid-19 as the "kung flu," "Wuhan virus," and "Chinese virus."[385] Scapegoating China for the Covid-19 pandemic, and the racist aggression that it fuels, adds another layer of trauma, anxiety, and depression for Asians, Asian-Americans, and Pacific Islanders.[386] Anti-Asian racism has an outsized impact on nurses as nurses of Asian and Pacific Island descent are overrepresented in the U.S. health care workforce,[387] particularly Filipinx and Filipinx-American nurses.

The anti-Black racism and white supremacy espoused by President Trump compounds the already substantial detrimental mental health impact of providing patient care during the pandemic. Moreover, this comes on top of higher baseline levels of stress and emotional exhaustion Black health care workers may experience from defending their patients against racist attitudes and treatments from other health care workers, and then may be criticized as troublemakers for doing so.[388] Finally, as program director of Alameda County, California's health care worker crisis line Binh Au notes, during the current political crisis, Black health care workers "are experiencing racism firsthand as well as the secondary trauma of seeing Black people killed by police officers[,]" causing some Black health care workers to experience debilitating depression and trauma.[389]

For some, the cumulative effects of the pandemic were more than they could bear. Health care workers across several countries have taken their own lives. They include two U.S. health care workers, Lorna Breen, an emergency department doctor who worked in a New York City hospital and felt overwhelmed by the number of patients who were dead on arrival with Covid-19,[390] and John Mondello, a newly graduated, 23-year-old emergency medical technician suffering from anxiety because of the high volume of deaths he saw on the job;[391] an Italian nurse named Daniela Trezzi who feared infecting her patients;[392] and an unnamed ICU nurse from the U.K. who cared for Covid-19 patients.[393]

Finally, as discussed above, international research from earlier outbreaks of SARS strongly suggests that nurses will experience significant long-term mental health effects in the United States. Dr. Mark Rosenberg, who chairs the emergency department in a New Jersey hospital, confirms this expectation in his description of the likely aftereffects of the pandemic: "As the pandemic intensity seems to fade, so does the adrenaline. What's left are the emotions of dealing with the trauma and stress of the many patients we cared for[.] … There is a wave of depression, letdown, true PTSD and a feeling of not caring anymore that is coming."[394]

PART III. MITIGATING CARE WORK INEQUITIES DURING THE COVID-19 PANDEMIC

TYPES OF PANDEMIC MITIGATION POLICIES: RISK MITIGATION AND EFFECTS MITIGATION

Nurses are facing high risks of exposure to Covid-19, but there are protective measures that nurses know could be implemented to reduce such risk. There are several policies and practices that employers, states, or the federal government could adopt immediately to start mitigating against this unequal risk of contracting and becoming a vector for Covid-19 borne by our nurses, other essential workers, and their families during the Covid-19 pandemic. These pandemic mitigation policies can be conceptualized into two broad categories — risk mitigation and effects mitigation. Risk mitigation policies in the pandemic are measures that reduce the risk to nurses or their families of exposure to Covid-19. In contrast, effects mitigation policies in the pandemic are measures that reduce or address the impact of a nurse's exposure to or contraction of Covid-19. Neither set of measures can substitute for the other. Nurses must remain vigilant in their fight for both the highest level of protection from workplace exposure to Covid-19 as well as compensation for their high risk of exposure to Covid-19 and material support if they contract Covid-19 even when optimal protective measures are taken.

PANDEMIC PRINCIPLES: PANDEMIC MITIGATION POLICIES MUST NEVER BE A SUBSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH PROTECTIONS

As nurses identify opportunities and formulate policy measures that may mitigate against the unequal risk borne by nurses and other essential workers during the Covid-19 pandemic, nurses must ensure that employers and legislators do not manipulate these mitigation efforts to supplant their responsibilities to keep workplaces safe or to deepen workplace inequities. When weighing potential pandemic mitigation policies, nurses must collectively demand that any additional pay or benefit provided during the pandemic never become a substitute for providing nurses optimal personal protective equipment or to protect nurses' health and safety. Nurses — and, indeed, all workers — always deserve fair and equitable wages as well as safe and healthy working conditions.

Remedying the impact of Covid-19 exposure through additional pay or other compensation and benefits does not excuse an employer or the government from their legal and moral obligations to provide safe workplaces for nurses and other essential workers. Measures that may remedy the physical, mental, financial, or other effects of forced occupational exposure to Covid-19 must not be treated as trade-offs for measures that would prevent workplace exposure at the outset and would protect the lives and health of nurses, patients, and their families and communities. In other words, pandemic effects mitigation measures should never substitute employer and governmental obligations to implement pandemic risk mitigation measures. Although nurses may consciously risk their lives and their families' lives working in hazardous conditions in order to care for others during the pandemic, this does not obviate employers' or government's responsibility to provide nurses with protections that infectious disease science has long demonstrated can reduce the risk of exposure to aerosolized diseases, like Covid-19. Additional pay, bonuses, or other material benefits for working in hazardous working conditions during the pandemic does not replace employers' responsibility to provide optimal personal protective equipment to nurses. With this principle in mind, this part examines specific types of pandemic risk mitigation and pandemic effects mitigation measures.

When weighing potential pandemic mitigation policies, nurses must collectively demand that any additional pay or benefit provided during the pandemic never become a substitute for providing nurses optimal personal protective equipment or to protect nurses' health and safety.

PANDEMIC RISK MITIGATION POLICIES: PPE AND OTHER MEASURES TO REDUCE EXPOSURE RISKS

We, as a society, depend on nurses to care for us when we are ill, and throughout this pandemic, as a result of employers' and government's failure to protect nurses as they provide care, nurses are placed at risk of exposure to the serious workplace hazard of Covid-19. Thus, as this affects both nurses and society at large, together we must hold employers and government at all levels accountable — at a bare minimum — of providing nurses with both the workplace protections that can reduce the risk of exposure to Covid-19 as well as government enforcement of such protections. Indeed, employers are legally obliged to mitigate risks of serious workplace hazards, and the federal and state OSHAs are statutorily obliged to enforce such standards. Other risk mitigation policies can and should include measures that reduce exposures of nurses and, by extension, their patients, families, and communities to Covid-19.

In general, on the part of employers, they should implement plans and protocols in response to Covid-19 to prevent nurses' and other health care workers' exposure to the virus, and these plans and protocols should be based on the precautionary principle, which holds that lacking scientific consensus that a proposed action, policy, or act is not harmful — particularly if that harm has the potential to be catastrophic — such action, policy, or act should not be implemented and the maximum safeguards should be pursued. On the part of the government, on all levels — local, state, and federal — all nurses and other health care workers must receive the highest level of enforceable protections in their workplaces, as determined by the precautionary principle. Government must also take necessary actions to ensure that the pandemic is controlled until effective treatments or vaccines are developed and distributed to the public equitably and for free.

Wearing the same N95 for longer than one patient interaction can endanger both nurses and patients because it increases the potential for spread of Covid-19 or other infectious diseases within the facility.

Provision of Optimal PPE

For nurses and other essential workers, mitigation of the risk of exposure to this novel virus and resulting disease necessarily includes optimal personal protective equipment and government oversight that ensures employers are meeting occupational safety and health standards. As described in NNU's report on PPE during Covid-19 published just as the first confirmed cases were being reported in the United States, a multitude of scientific research has identified the optimal PPE for health care workers who may be exposed to aerosol transmissible diseases like Covid-19.[395] Instead of racing to the lowest standard possible, employers should provide nurses and other health care workers with adequate volumes of respirators and other PPE necessary to provide the optimal protections against Covid-19 transmission with adequate training and staffing necessary to ensure the proper use of PPE. Both federal and state workplace safety and health agencies should enforce standards to ensure that employers have such supplies that are readily accessible and that employers provide such necessary staffing and training. Without government intervention, PPE shortages could persist for years.[396]

PPE for nurses and other health care workers who provide care to patients with suspected or confirmed Covid-19 infections must be based on both airborne and contact precautions for infectious disease. Optimally, PPE for nurses includes a continual and sufficient supply of powered air-purifying respirators (PAPRs) or other reusable respirators that provide high-level respiratory protection, coveralls, and other PPE to ensure no clothing, skin, or hair is exposed. PAPRs with high-efficiency particulate air filters provide a higher level of respiratory protection for nurses and must be worn not only during aerosol-generating procedures but optimally for any interaction with a suspected or confirmed Covid-19 patient. Other reusable respirators, such as elastomeric respirators with N/P/R 99 or N/P/R 100 filters, provide higher levels of protection than single-use disposable N95 respirators and are more cost-effective.[397] At minimum, PPE for nurses should consist of a continual and sufficient supply of N95 respirators, face shields, gowns, gloves, eye protection, shoe coverings, temporary scrubs, and other PPE such that single-use PPE is never reused (even if it has gone through a so-called "decontamination" process) nor used for extended periods.[398] Many health care employers, however, have ignored the science of industrial hygiene and aerosol transmissible disease, and they claim that surgical masks are sufficient for all encounters with Covid-19 positive patients and all encounters with persons under investigation (PUI) for Covid-19, except for

aerosol-generating procedures. Nurses have had to fight for even the minimum level of respiratory protection.

Ideally, every hospital and other health care facility in the country should have had a stockpile of PPE to use in case of an infectious disease outbreak and, at minimum, should have prepared such a stockpile in mid-January when it was clear from international reporting that it was only a matter of time before Covid-19 was identified in the United States. When nurses do not have the optimal PPE for aerosol transmissible diseases, they are at risk of exposure and infection. In emerging infectious disease events like Covid-19, it is of the utmost importance that health care employers and public health agencies follow the precautionary principle — we must not wait until we know for certain that something is harmful before action is taken to protect people's health.

In addition to the adequate supplies of PPE in the volumes required, there are other necessary components in the effective provision of PPE, proper training, staffing, and procedures both for fit testing and for proper donning and doffing — taking on and taking off — of PPE. N95s are designed to achieve a very close facial fit and to form a seal around the nose and mouth. The fit and seal of an N95 are necessary elements in the mask's design for it to provide very efficient filtration of airborne particles. Thus, ensuring that specific brands, models, and sizes of N95s provide each individual nurse with the proper fit and seal is critical in ensuring the effectiveness of PPE provided to each nurse. Annual fit testing and user seal checks are mandated by OSHA for N95 respirators to ensure that the respirator provides the individual a proper fit. Additionally, employers are responsible for worker medical evaluations before fit-testing to ensure that employees can physically wear a respirator safely. Similarly, employers must provide training, staffing, and procedures for all employees on safe and proper donning and doffing PPE. Proper donning and doffing are critical in ensuring that nurses and other health care workers have both correctly put on PPE and that, when they take contaminated PPE off, they and others are not exposed to Covid-19 or other infectious diseases. All donning and doffing should be performed in a separate room and use a buddy system or observer to assist in donning and doffing of PPE to ensure that it is done safely. Moreover, both fit testing and proper donning and doffing require adequate staff on hand to provide such fit testing and trainings for each employee.

Current employer and government inaction have left nurses without even the minimum PPE necessary to protect nurses from Covid-19 exposure. In many cases, nurses have had to go without any protection whatsoever with some resorting to homemade masks and garbage bags.[399] Employers were unprepared from the beginning of the pandemic to supply nurses with appropriate PPE as a result of their "just-in-time" corporate management practices that prioritize maximizing profit over stocking sufficient supplies and providing sufficient staffing to care for patients safely. On the part of the federal government, the CDC immediately rolled back PPE standards for infectious disease in service of the health industry's self-induced problem of low supply. Other federal agencies and state governments followed suit by lowering occupational safety and health standards and reducing enforcement of these protections.

Months into the Covid-19 pandemic, health care employers continue to dangerously ration N95 filtering facepiece respirators. N95s are manufactured to be single-use devices and can become contaminated with viral particles after just one use with a Covid-19 patient. In hospitals where nurses are given N95 respirators, employers have deployed various N95 reuse or extended use policies despite the fact that these practices contradict previous infectious disease control practices and the known design limitations of such disposable respirators. Nurses are forced to reuse those disposable respirators, sometimes for an entire shift, days, weeks, or months on end. Reusing single-use PPE, such as an N95, however, is a dangerous practice that can increase exposures to nurses, other staff, and patients. Nurses are being put at risk of exposure every time they reuse an N95. Employers have told nurses to use N95s for extended periods of time, to reuse them between different patients, and then require nurses to place N95s in paper bags at the end of their shift to use for multiple days or weeks. Wearing the same N95 for longer than one patient interaction can endanger both nurses and patients because it increases the potential for spread of Covid-19 or other infectious diseases within the facility. Moreover, nurses' risk of exposure to Covid-19 increases when employers require nurses to repeatedly don and doff the same contaminated N95. Repeated donning and doffing can damage the fit of the N95 and elasticity of the straps,[400] potentially making them unable to provide the tight face seal necessary for respiratory protection and increasing nurses' exposure to Covid-19.

Since the U.S. Food and Drug Administration (FDA) first approved the use of N95s in early March, hospitals have begun to mandate that nurses use N95s after they have been through a so-called "decontamination" process. No decontamination method, however, has been shown with validated, scientific evidence to be both safe and effective. Employers are increasingly implementing PPE

"decontamination" to save money, endangering nurses' lives in the process. Some employers required nurses to place N95s in paper bags for a few days before reuse, but research has shown that SARS-CoV-2 can survive for extremely long periods outside the human body depending on environmental conditions, including for at least 21 days on N95 respirators.[401] Other so-called "decontamination" methods use systems manufactured by Battelle, STERIS, Advanced Sterilization Products, and other manufacturers.

As detailed in NNU's fact sheet on these so-called mask "decontamination" processes, these methods can degrade the respirator so that it no longer offers respiratory protection, and some methods use chemicals that are toxic to breathe.[402] Nurses report that, when N95s are returned after undergoing "decontamination," the masks are deformed, with loose elastic bands, and no longer fit securely to provide the proper seal necessary for the mask to be effective. Often, nurses say the masks smell of chemical agents used in the "decontamination" process and they are concerned about being exposed to carcinogens and chemicals used in the "decontamination" process when wearing these masks. In early June, the FDA, however, pushed through emergency use authorization (EUA) to bypass normal safety regulations and to authorize wide use of these untested "decontamination" systems. The U.S. Department of Defense at the same time awarded a $415 million federal contract to Battelle to use nurses as guinea pigs on these untested systems. It is important to note that the FDA's EUA does not constitute FDA approval of these methods. The language of the FDA's EUA is instructive here, stating, "No descriptive printed matter ... may represent or suggest that such products are safe or effective for the decontamination of compatible N95 respirators for ... reuse by [health care personnel] to prevent exposure to pathogenic biological airborne particles."[403] In other words, the FDA itself prohibits these systems from being labeled or characterized as safe or effective for decontamination. Instead of implementing these crisis standards in the face of N95 shortages, employers could provide nurses with other types of respirators that have equivalent or higher levels of protection as N95s, such as elastomerics, PAPRs, industrial N95s, other kinds of filtering facepiece respirators (N/P/R-100, etc.), and comparable respirators from other countries (FFP2/3).

In February, NNU began a survey of nurses across the country to assess hospital preparedness. It was made clear very quickly that most hospitals did not have the PPE, training, or pandemic response protocols necessary to respond effectively and safely to an outbreak of this emerging infectious disease. In survey results released on March 20, 2020, in which more than 6,500 nurses responded from 48 states, plus the District of Columbia and the Virgin Islands, NNU found that:

- Only 29 percent reported that their employer had a plan in place to isolate a patient with a possible novel coronavirus infection; 23 percent reported they did not know if there was a plan;
- 63 percent reported having access to N95 respirators on their units; only 27 percent reported having access to PAPRs on their units; and
- Only 30 percent reported that their employer had sufficient PPE stock on hand to protect staff if there was a rapid surge in patients with possible coronavirus infections; 38 percent did not know.[404]

The president and Congress, however, have powers to increase production of PPE. The president could use executive powers under the Defense Production Act of 1950 to mandate that private manufacturers immediately increase the domestic production of respirators and other PPE to the volumes required to respond to the pandemic and to institute new accountability and transparency measures for states and the federal government to track PPE stock and distribution. The Covid-19 pandemic has laid bare the failures of our medical supply chain system, and this provides us an opportunity to build a medical supply chain system that is coordinated, transparent, effective, and effici ent. Although the president has used these same powers to increase the production of ventilators, he has yet to use them to increase dramatically the production of N95 respirators, PAPRs, or other PPE.

The power to increase PPE production does not lie solely with the president. Congress could, at minimum, legislate transparency and centralized coordination of production and distribution of PPE supplies, and it could create clear plans on how the president could use executive powers to order increased production of PPE. Additionally, Congress could explicitly earmark appropriations dollars toward the purchase or production of PPE. To date, neither Congress nor the president have used their respective powers to increase PPE in the volumes required to protect nurses during the pandemic.

As mentioned in Part I, NNU gathered responses in April, May, and June to another survey of RNs on workplace protections, testing, and Covid-19 infections among nurses.[405] The results of this survey, last updated on July 27, 2020, show the continued

failures by health care employers and the government. With responses from over 21,200 nurses from 50 states plus the District of Columbia and three territories, again the survey results showed the following:

- 87 percent reported having to reuse a disposable respirator or mask with a suspected or confirmed Covid-19 patient;
- 54 percent reported that their employer implemented so-called "decontamination" programs for single-use PPE, such as N95 respirators and surgical masks, between uses;
- 72 percent reported having exposed skin or clothing when caring for suspected or confirmed Covid-19 patients, leaving nurses and their colleagues at increased risk of being exposed to the virus at work.[406]

As demonstrated by the survey results, taken more than four months into this pandemic, nurses across the country still did not have the appropriate PPE that is necessary to keep our nurses, patients, and their communities safe. This failure increases nurses' risk of exposure to Covid-19, which can have potentially deadly consequences for nurses and their families.

Accordingly, in California, the state legislature passed the nation's first bill, AB 2537, sponsored by the California Nurses Association (CNA), requiring hospitals to maintain a 90-day or three-month supply of PPE. Beginning April 1, 2021, employers in hospital settings will be required to maintain a three-month stockpile of new, unexpired, and unused PPE. Employers will also be required to supply PPE to employees and ensure that their employees use the PPE supplied to them. The requirements under the bill apply broadly to any person or organization that employs workers providing direct patient care in a general acute-care hospital. Additionally, upon request, general acute care hospitals must provide to the California Division of Occupational Safety and Health (Cal/OSHA) records of their inventory and written procedures for periodically determining the quantity and types of equipment used in normal consumption. Furthermore, the consequences for failing to comply with the requirements can be severe. AB 2537 specifically authorizes Cal/OSHA to enforce violations of the law through the issuance of citations, which may carry monetary penalties of up to $25,000 and could have a multiplier effect depending on the number of citations issued.

Enforcement of Occupational Health and Safety Standards

Necessary risk mitigation measures must also include government oversight and enforcement of occupational safety and health standards to ensure that employers are actually providing nurses with the PPE that they need. Effective oversight and enforcement would first and foremost mean that state and federal government provide the most protective occupational health and safety standard for all workers during the pandemic.

The most protective occupational health and safety standard would adhere to aerosol transmissible disease precautions to ensure that nurses and other frontline workers are given the protections, including optimal PPE and other precautionary protocols, necessary to prevent occupational exposure to Covid-19. Federal and state government could do this by issuing an emergency temporary standard that mirrors California's existing aerosol transmissible disease (ATD) standard that is enforced by the state's OSHA. California's ATD standard covers

employers with health care operations (both inpatient and outpatient), medical transport, and emergency medical services as well as other worksites identified as being at high risk for ATD transmission. The ATD standard requires screening protocols to identify patients with an ATD, plans to ensure prompt isolation of patients with a suspected or confirmed ATD, PPE for nurses and other health care workers providing care to patients with a suspected or confirmed ATD that meet both airborne and contact precautions, timely notice by employers to workers exposed to an ATD, and 14 days paid precautionary leave.

Of course, an ATD standard is only effective if enforced by occupational safety and health agencies. In California, unfortunately, the chronically understaffed California Division of Occupational Safety and Health (Cal/OSHA) initially defaulted to responding to most Covid-19 occupational safety and health complaints from workers with letters to employers rather than on-site inspections for violations. Since the start of the pandemic and following California Governor Gavin Newsom's executive order on March 4, 2020, directing Cal/OSHA to focus on compliance assistance rather than enforcement of standards, Cal/OSHA's inspection rate dropped precipitously from its annual inspection rate of 25 percent of worker complaints. From an analysis by CalMatters, Cal/OSHA conducted on-site inspections in response to only 5 percent of Covid-19-related complaints filed between February 1 and September 27.[407] In September, after a number of high-profile outbreaks and worker-organized public campaigns protesting hospital employers' failure to provide N95 respirators and other PPE to nurses, Cal/OSHA began issuing its first citations of employers for failing to have Covid-19 protocols or for Covid-19 illnesses in workers. For example, union nurses with the California Nurses Association successfully filed complaints against Providence Saint John's Health Center in Santa Monica, Calif., for failing to provide N95 respirators to nurses caring for Covid-19 patients. The union filed the complaint against Providence Saint John's with Cal/OSHA in April and, after pushing for stronger enforcement of the ATD standard, Cal/OSHA issued citations in October against the hospital for two ATD standard violations and a violation of the injury and illness program standard. While an ATD standard would begin to rebuild the workplace health and safety standards that have been rolled back by federal and state agencies engaged in race-to-the-bottom precautions, the effectiveness of such a standard will depend on robust enforcement by workplace safety and health regulators.

A key element to containing Covid-19, of course, is the free and readily available testing for active Covid-19 infections both provided by health care employers to their employees and the government to the public at large.

Importantly, Congress can mandate that federal and state OSHAs adopt such a standard. Federal OSHA has already indicated that they have no intention of issuing a national emergency workplace safety standard on Covid-19 and have failed to act on petitions for an emergency temporary standard filed by NNU and by the AFL-CIO. To date, although federal legislation mandating OSHA issue an emergency temporary standard on Covid-19 has been introduced multiple times, Congress has yet to pass such a measure.

States that have a state OSHA plan, which allows the state to issue its own workplace safety and health standards, do not need to wait until Congress or federal OSHA acts. These state OSHAs could issue their own temporary emergency standard to protect nurses and other frontline workers from Covid-19. Indeed, on June 24, Virginia's Safety and Health Codes Board of the state Department of Labor and Industry was the first such state OSHA plan to vote affirmatively to enact an emergency temporary standard on Covid-19 workplace safety.[408] The emergency temporary standard, which was finalized on July 15, 2020, requires that employers develop policies for workers who experience Covid-19 symptoms and prohibit employers from having employees with suspected Covid-19 cases work. The rule would also require that employers notify their employees of possible exposure to infected coworkers within 24 hours and also mandate physical distancing, sanitation, disinfection, and hand-washing procedures. Importantly, Virginia's OSHA inspectors have committed to enforce the emergency temporary standard with penalties up to $130,000 and force closure of worksites in severe cases of employer noncompliance. The Virginia Safety and Health Codes Board considered including language that would have weakened the enforceability of the standard by permitting

some employers' noncompliance, but worker advocates in the state fought collectively against the inclusion of this language.[409] Virginia's emergency temporary standard became effective on July 27, 2020, but a business group sued the state agency in September in attempts to overturn the emergency temporary standard on procedural grounds.[410]

Just days after Virginia's Department of Labor and Industry voted to enact an emergency temporary standard, Oregon's Occupational Safety and Health (OSH) agency announced plans to consider emergency temporary standards on workplace safety on Covid-19.[411] Oregon OSH considered two rules, one for health care employers and one for manufacturing, retail, construction, and general industry. After holding meetings with employers and worker representatives on rulemaking processes, Oregon OSH, with the initial hopes of issuing a temporary rule by early September, ended up delaying the release of the temporary rule. After delays, it issued its draft Covid-19 temporary standard on October 13, 2020 but just a week later, on October 21, 2020, Oregon OSH issued a statement further adjusting its timeline, stating that changes to the draft would need to be made. The agency finalized the temporary rule on November 6, 2020, (effective November 16, 2020, until May 4, 2021) with the no clear goal for when it hopes to issue a permanent standard.

Other states have adopted, or are considering whether to adopt, enforceable workplace health and safety standards on an emergency basis, but these efforts have faced legal challenges from employers. For example, on May 18, 2020, Michigan's Governor Gretchen Whitmer signed an executive order requiring all employers who require employees to work outside of their homes to establish Covid-19 preparedness and response plans that are readily available and posted for employees, labor unions, and customers. The executive order had detailed guidelines for businesses based on industry and would have imposed Michigan's Occupational Safety and Health Administration (MIOSHA) penalties. However, on July 9, 2020, Governor Whitmer rescinded the enforcement penalties under the executive order after a state court ruled that the Governor Whitmer did not have the authority to apply MIOSHA penalties to the detailed worker protection guidelines for reopening in her executive order.[412] After conducting additional rulemaking, MIOSHA issued a less stringent emergency standard on Covid-19 on October 14, 2020, which provides a much simplified framework compared to the executive order, lacks specificity on requirements for employers, and is reliant on ever-changing CDC guidelines.[413]

Other Exposure-Reducing Measures

Other measures can be taken by employers and government to mitigate the risk of nurses' exposure to Covid-19. In general, both employers and government can provide surveillance, screening, and testing protocols to identify patients and people who may have been exposed to Covid-19 and who may have Covid-19 infections. Hospitals should have plans to ensure the prompt isolation of patients with suspected or confirmed Covid-19 infections in airborne infection isolation rooms. The government should have plans to ensure prompt quarantine of those with suspected or confirmed Covid-19 infections who do not need hospital care and robust contract tracing. Employers should have open and continuous communication about any potential workplace exposure to suspected or confirmed Covid-19 cases for nurses and other health care workers while government should have plans and procedures for aggressive contact tracing to ensure that all people who may have been exposed are informed and can take the necessary precautions. A key element to containing Covid-19, of course, is the free and readily available testing for active Covid-19 infections both provided by health care employers to their employees and the government to the public at large.

For hospitals, implementation of policies and practices that reduce nurses' and other health care worker exposure to Covid-19 include:

- Implementing limitations on the possible introduction of the virus into health care facilities;
- Adopting "universal precautions" that assume that each patient has an asymptomatic infection;
- Using occupational exposure prevention, surveillance, and response to prevent transmission to and by health care workers; and
- Implementing procedures to ensure safe handling of deceased patients.

These hospital measures are described in more detail in National Nurses United's "Model Standards for COVID-19 Surge: Hospital Preparation, Response, and Strategy."[414] These kinds of measures include other hazard control measures that would prevent, surveil, and respond to workplace exposure, which occupational health and safety experts refer to as engineering controls and work practice controls. These measures could reduce the rate at which PPE is used, called the "burn rate" of PPE.

Specifically, hazard control measures that health care employers should implement in addition to the others discussed in this subsection include:

- Designated, separate zones for physical cohorting of suspected and confirmed Covid-19 patients, suspected Covid-19 patients, and patients in whom Covid-19 has been ruled out with dedicated staffing for each zone and protocols for moving safely between zones;
- Universal masking policies throughout health care facilities;
- Converting units and floors to negative pressure areas;
- Increasing filtration or the proportion of outside air to reduce potential for recirculation of infectious particles;
- Implementing opt-out processes for nurses and other health care workers at risk for severe illness and death;
- Monitoring of health facility staff symptoms;
- Providing readily available Covid-19 testing for health facility workers;
- Temporary alternate housing for frontline staff working in hospitals;
- Employer-provided temporary scrubs and facilities for staff to shower and change; and
- Safe staffing levels and no mandatory overtime.

On the issue of safe staffing, it is important to note that hospitals must ensure that staffing is sufficient to ensure that nurses assigned to patients with suspected or confirmed Covid-19 can take breaks and get relief as needed. If the patient is a Covid-19 rule out patient or patient under investigation, then all precautions should be implemented as if the patient is a confirmed case until they are confidently ruled out or discharged.

The NNU surveys of RNs on workplace protections, testing, and Covid-19 infections among nurses during the pandemic, mentioned in Part I above, found that health care employers and government have not been meeting these basic measures that have been shown to reduce and slow the transmission of Covid-19 to nurses and other health care workers.[415] Other workplace polices that are not traditionally viewed as hazard control measures could also prevent workplace exposure to Covid-19. For example, paid sick and family leave, which is discussed in more detail below, can be characterized as a work practice control that reduces the risk of exposure to infectious disease because it reduces the likelihood of a sick worker or worker who has been exposed to Covid-19 from going to work and transmitting the virus to their patients and coworkers.

For government, public health agencies could ramp up contact tracing, universal masking, and stay-at-home measures. Executive and legislative branches of government could also mandate or otherwise create legal incentives for health care facilities to adopt the policies and practices recommended above. Additionally, legislatures, governors, or the president could protect health care workers from retaliation for reporting unsafe working conditions or failure by employers to adopt the measures described above.

These measures by government may seem uncontroversial at first blush, but now as plans on reopening the country are well underway, our nurses face increased risk. The point of physical distancing policies is to slow the spread of the virus to reduce the number of people infected and to prevent a rapid surge in patients needing acute care that would overwhelm the health care system, causing patients who could have been saved to die needlessly. The United States' slow response and lack of preparation indeed has resulted in an estimated 36,000 needless deaths, according to a study from Columbia University.[416] Our health system should have spent the past five months scaling up our testing and treatment capacity and improving our medical supply chain so that hospitals could better handle an influx of coronavirus patients without compromising the safety of nurses and other health care workers. Unfortunately, the Trump administration, Congress, and the for-profit health industry have failed to do that. As a result, nurses and other workers do not have the protections that they need to keep themselves safe as the premature reopening of the economy ushers in a massive surge of Covid-19 infections.

Indeed, the CDC's guidelines permit hospital employers to set aside even the most basic guidelines to have nurses and other health care workers stay home if they test positive for Covid-19 or are experiencing Covid-19 symptoms. On July 17, 2020, the CDC issued crisis guidelines for health care facilities to bypass the CDC's own recommendations on occupational transmission of the virus. Ostensibly to address health care personnel staffing shortages, these CDC crisis guidelines state that, although health care personnel who test positive for Covid-19 should be excluded from work until they meet the CDC's return to work criteria, to mitigate staff shortages health care employers can develop their own criteria to determine which workers with suspected or confirmed Covid-19 infections are "well enough" to work without meeting the return to work criteria.[417] The CDC goes on to recommend not only that workers who have tested positive for Covid-19 take care of suspected or confirmed Covid-19 patients but it also recommends that health care employers allow "[health care workers] with confirmed COVID-19 to provide direct care for patients without suspected or confirmed COVID-19" albeit as a "last resort[.]"[418] Taking full advantage of CDC's crisis guidance, health care employers are pressuring nurses and other health care workers to continue working if they test positive for Covid-19 or even if they have been exposed and should be quarantined while waiting for test results.[419]

Importantly, health care facilities that are reopening procedural and outpatient areas must end all crisis standards of care, including all regulation or oversight waivers implemented on an emergency basis. This means they must resume optimal standards of care everywhere, including inpatient, procedural, outpatient, and other areas. Any reuse, extended use, decontamination, or other unsafe PPE practices must end, and full, optimal PPE must be provided to nurses and other health care workers in inpatient, procedural, outpatient, and all other areas. To prevent transmission of the virus within the facility and to protect nurses and other health care workers from exposure, hospital reopening procedural areas must:

- Screen all patients for active viral infection using a reliable RT-PCR test before or upon arrival at the facility;
- Delay procedures for any patients who tests positive, if possible. If not, Covid-19 positive patients should be cared for in a designated Covid-19 procedural area;
- Screen all patients testing negative for epidemiological risk factors including, but not limited to ill contacts, international travel, and potential for occupational exposures; and
- Implement measures to limit introduction of the virus and spread within the facility using the three-zone model and other important protections detailed in NNU's Safety Requirements for Hospitals Reopening Procedural and Outpatient Areas.

Although the health care industry across the country has not significantly increased testing and treatment capacity, union nurses in California will soon see major improvements in testing after scoring a tremendous victory on November 25, 2020 when the California Department of Public Health (CDPH) directed all general acute-care hospitals in the state to begin weekly Covid-19 testing of all health care workers and all patient admissions. For months, NNU's California affiliate, the California Nurses Association, had been fighting to get an enforceable requirement that acute care hospitals provide weekly testing for nurses and other hospital

Nurses and other workers do not have the protections that they need to keep themselves safe as the premature reopening of the economy ushers in a massive surge of Covid-19 infections.

staff who may not be directly involved in patient care but who could be exposed to Covid-19 such as clerical, environmental services, and laundry personnel. CDPH issued an "all-facilities letter" detailing testing requirements with "high-risk personnel" to be tested weekly starting December 7, 2020, and all health care personnel to be tested weekly starting December 14, 2020.[420] All patient admissions must be tested starting immediately.

Finally, prioritization of government funding for health care and guaranteeing health care for all in a single-payer health care system would be a long-term solution to ensure that nurses and patients have the supplies, equipment, and other resources needed to respond to not only this pandemic but also the ones that may occur in the future. Covid-19 has shown that our fragmented system is unable to allocate resources based on need. Nurses and other health care workers would not have died unnecessarily because of health corporations' reliance on a "just-in-time" supply model, which failed to get them the PPE that would have kept them and their patients safe. If health care for all were guaranteed under a Medicare for All system, the country could address the pandemic in an equitable manner. Prioritizing funding of health care and guaranteeing health care for all can help us begin to mitigate against the continued, disproportionate deaths and infections from Covid-19 in Black, Latinx, and Native American communities. With guaranteed health care for all, testing and treatment for Covid-19 would be both readily accessible and free in all communities; and we would have transparency and coordination in our medical supply chain so that nurses and other health care workers could know where medical and PPE supplies are located and where testing and treatment are available.

During the pandemic, Congress has favored relaxation of workplace safety and health regulations over ensuring that Black, Indigenous, and people of color (BIPOC) communities receive the testing and treatment that they need. Congress has yet to earmark appropriations toward PPE for nurses and other health care workers on the front lines of the pandemic while state and local law enforcement have been appropriated $850 million for overtime, PPE, supplies, and training. Nurses are wearing garbage bags and are being forced to reuse deformed N95s, while police are decked out in military-grade riot gear. Many communities live without easy access to a hospital or doctor for Covid-19 or other care, but interface with police daily. To say that the United States has our budgeting priorities wrong is an understatement. The national uprising during this pandemic in protest of the brutal police violence against Black people in our country should not come as a surprise. The same racism that allows police to kill and harm Black people also causes the deep systematic failures of our public health system to protect Black lives. Over the course of the past 40 years, federal, local, and state governments have heavily invested in an expanding military police presence in communities of color, while failing to invest in the health and social services needed. This is consistent with the historic prioritization of funding law enforcement, the devaluation of nurses' and other care workers' labor, and racial inequality in our health care system. During this pandemic, Congress has failed to ensure not only that the lives of nurses and other health care workers' matter, but it has failed to ensure that the lives of Black and Brown people matter.

Failing to ensure that all communities and people living in the United States have the health care resources needed to protect themselves and their families from Covid-19 ultimately puts nurses at risk as they continue to treat and care for patients during the pandemic. Guaranteeing health care for all and prioritizing the funding of public health, including all the attendant needs of nurses and other health care workers to respond effectively and control the further spread of Covid-19, are critical in the prevention of further exposures, infections, and deaths among nurses and other health care workers, patients, and the community at large.

Prioritization of government funding for health care and guaranteeing health care for all in a single-payer health care system would be a long-term solution to ensure that nurses and patients have the supplies, equipment, and other resources needed to respond to not only this pandemic but also the ones that may occur in the future.

PANDEMIC EFFECTS MITIGATION POLICIES: PAID LEAVE, PRESUMPTIVE ELIGIBILITY, AND ESSENTIAL WORKER PAY

In addition to adopting policies and practices that would reduce the risk of Covid-19 exposure for nurses, both employers and government can provide additional measures to mitigate against the effects of Covid-19 exposure and the effects of being called on to provide essential pandemic work. These kinds of effects mitigation policies should include paid sick and quarantine leave, presumptive workers' compensation eligibility, and an essential worker pay differential.

Paid Sick, Family, and Quarantine Leave

Offering nurses and other essential workers paid sick and quarantine leave as well as paid family leave are basic measures that would reduce the spread of Covid-19. When nurses are exposed to Covid-19 or become ill, they should not have to choose between their paycheck and the risk of further spreading the disease. Without guaranteed paid sick or quarantine leave, an employer can pressure nurses to work even though they are exposed. Reports from nurses show that some employers refuse to allow nurses to use leave even if they have Covid-19 symptoms. Paid family leave would provide nurses with financial support and job security if they need to provide care for their children or family members. Paid family leave not only provides some pay equity for nurses who may bear the unequal burden to provide unpaid household care but it also provides a form of presumptive compensation to a nurse whose family member may have contracted Covid-19 after the nurse herself was exposed at work. Importantly, given the high percentages of asymptomatic cases, failure to provide nurses paid sick, quarantine, or family leave ultimately fuels spread of the disease to nurses' patients, coworkers, families, and communities.

Although congressional Covid-19 relief packages established emergency paid sick leave and expanded family leave for Covid-19, federal legislation explicitly excluded nurses and other health care workers from these mandatory workplace benefits. For family leave, only 23 percent of health care and social assistance workers in private industry have any form of paid family leave, though 85 percent have at least minimal paid sick leave available.[421] While nurses may have access to paid sick leave at higher rates than private sector workers overall, paid leave specific to Covid-19 is critical for those working during the pandemic and, in particular, for nurses who are exposed to Covid-19 as a result of inadequate workplace health and safety protections. Even nurses who do have paid sick leave may not have enough to span the minimum 14-day isolation protocol after exposure or to cover multiple instances of exposure. Moreover, no worker should have to use their accrued sick or other paid leave for a preventable workplace exposure to a potentially deadly infectious disease.

Presumptive Eligibility for Covid-19 Workers' Compensation

Presumptive eligibility for workers' compensation for nurses and other health care workers receive who contract Covid-19 is a crucial element in the package of benefits that could mitigate against the effects of Covid-19. Presumptive eligibility would mean that nurses would not bear the legal and evidentiary burden of proving that they contracted Covid-19 while on the job. Relief from this burden of proof is exceedingly important in the context of the current pandemic. The evidentiary requirement that a nurse must provide specific proof that her Covid-19 was connected to her work is particularly difficult given the fact that SARS-CoV-2 is a novel virus with still uncertain disease transmission pathways. Moreover, in the health care context, patient privacy laws severely limit the kinds of evidence a nurse can collect and the investigatory measures a nurse can take to prove that a specific patient she treated or was exposed to was infected with Covid-19 at the time of the exposure. Providing nurses with Covid-19 presumptive eligibility would remove this hurdle and, as a matter of public policy, recognize that by virtue of being deemed essential during the pandemic, nurses have an undue risk of exposure to Covid-19.

The specific package of Covid-19 workers' compensation benefits for nurses should include not only payment for medical care related to Covid-19 but also for time off during quarantine and medical treatments, payment for temporary housing if needed to prevent exposure to household members, and necessary PPE. Moreover, whether included in a workers' compensation package or in other employment benefits, employers should provide nurses who contract Covid-19 long-term health benefits as well as survivor benefits for the families of nurses who die from Covid-19. Some states have taken steps in attempts to provide some presumptive Covid-19 workers' compensation coverage for health care workers. As of the date of this brief, eight states — Alaska, California, Kentucky, Michigan, Minnesota, Utah, Wisconsin, and Wyoming — have by legislation, executive action, or agency emergency rule issued or passed some form of presumptive

workers' compensation eligibility for nurses or health care workers. However, some of these state actions on Covid-19 workers' compensation are fleeting or otherwise limited, and others may be subject to enforcement or legal challenges. For example, California Governor Gavin Newsom's May 6, 2020, executive order provided presumptive eligibility for workers who contract Covid-19 and are working outside of their homes, but the order applies only to workers who file reports with their employer between March 19, 2020, and July 5, 2020, and temporary disability benefits are only provided once federal or state Covid-19 paid sick leave benefits are exhausted. Similar to the May 6 executive order, California legislators passed a bill, SB 1159, that was signed into law by the Governor Newsom, that provides a disputable presumption of workers' compensation eligibility for workers who test positive or are diagnosed with Covid-19, but even this rebuttable presumption is limited. Like the executive order, this rebuttable presumption applies only to certain essential worker reports filed with employers between March 19, 2020 and July 5, 2020. For workplaces with Covid-19 outbreaks among employees as defined in the bill and for firefighters, police, and certain health care workers who have had direct contact or provide patient care to Covid-19 positive patients, the rebuttable presumption applies to reports filed with employers between March 19, 2020 and January 1, 2023. For all workplaces, the presumption applies only if the worker's Covid-19 diagnosis is made within 14 days after a day that the worker performed labor or services at their place of employment and did so at their employer's direction. Moreover, it is unclear how these presumptions of workers' compensation eligibility will pan out in practice and whether or not relief for workers in the evidentiary burden of proving a Covid-19 workers' compensation claim will indeed lead to such claims being granted. A number of additional states — Illinois, Louisiana, Massachusetts, New Jersey, New York, Ohio, Pennsylvania, South Carolina, and Vermont — have introduced legislation on presumptive eligibility for some workers who contract Covid-19. In California, as discussed below, several pieces of legislation have been introduced that would provide broader and more comprehensive presumptive workers' compensation eligibility for nurses.

Several other states have taken action related to workers' compensation for essential workers who file Covid-19 workers' compensation claims, but these actions fall short of presumptive eligibility. Arkansas Governor Asa Hutchinson issued executive orders that suspended, for a small set of frontline workers, certain provisions of state workers' compensation law that would have barred any worker from receiving workers' compensation as a result of contracting Covid-19, but nurses working in Covid-19 units would still have to prove a causal connection between their exposure to Covid-19 and their work, and nurses who may be exposed to the virus at work but are not directly assigned suspected or confirmed Covid-19 patients still would be ineligible for workers' compensation. Washington's Department of Labor & Industries changed policy to provide additional workers' compensation benefits, such as medical testing, treatments, and time-loss pay, to health care workers and first responders after occupational exposure to Covid-19, but it did not go so far as to provide presumptive eligibility or otherwise expand coverage. North Dakota Governor Kristi Noem issued an executive order merely clarifying that workers can file workers' compensation claims for Covid-19.

Our laws and our lawmakers, however, have consistently disregarded the risks that nurses are exposed to through their work by excluding them from legal protections and benefits that male-dominated occupations receive. Nurses have never received such workers' compensation presumption despite the clear evidence of high risk of infectious disease exposure as well as musculoskeletal injuries from lifting and supporting patients and an array of injuries caused by workplace violence. The concept of presumptive workers' compensation eligibility traditionally has been reserved for male-dominated professions with several states providing firefighters and police officers with presumptive eligibility for broad ranges of injury and illness. The provision of PE to firefighters and police for many injuries and illnesses that health care workers are just as or even more likely to have or contract is yet another manifestation of the persistent devaluation of nurse labor.

Presuming eligibility for workers' compensation for contracting Covid-19 would be a first step toward recognizing the value of nurses' labor and provide employers with a long overdue incentive to protect them from workplace exposure in the first place. For example, California's legislature has long provided presumptive eligibility for firefighters, police, and other male-dominated "first responder" occupations. The breadth of injury and illness for which California's firefighters and police presumptively receive workers' compensation is vast and includes cancers, hernias, pneumonia, heart trouble, bloodborne infectious disease, methicillin-resistant staphylococcus (MRSA), meningitis, and tuberculosis.

This year, California legislators introduced a bill, AB 664, which was sponsored by the California Nurses Association (CNA), the that would provide a conclusive, rather than a rebuttable, presumption of workers' compensation eligibility for health care workers providing direct patient care who contract

Covid-19 in addition to firefighters, police, and other first responders. This would be the first time that California nurses would receive presumptive workers' compensation eligibility for any injury or illness. Unfortunately, AB 664 failed passage. California legislators also introduced a bill, SB 893, which was sponsored by CNA, which could be considered the "gold star" standard for presumptive eligibility for nurses and health care workers. SB 893 would have created a rebuttable presumption of workers' compensation eligibility for hospital employees who provide direct patient care in an acute hospital setting for ailments such as infectious disease, respiratory disease (including Covid-19), and musculoskeletal injuries. Over 90 percent of registered nurses are female and are treating the same patients that male first responders are treating in the field. Registered nurses rank amongst the highest occupations in work-related injuries and illnesses in the United States including: 10 percent more injuries of all kinds, 43 percent more musculoskeletal disorders, 131 percent more injuries from workplace violence, 22 percent have symptoms of posttraumatic stress disorder, and 24 states in the United States found a significantly increased mortality among nurses due to liver cancer, myeloid leukemia, kidney cancer, multiple myeloma, and ovarian cancer. This measure would have ensured that all frontline health care workers have access to the same workers' compensation presumptions and would have been a vital step in achieving economic and gender equality in the state of California. This bill also failed passage in the state legislature, but CNA is committed to pursuing this legislation until it signed into law. Nurses need and deserve this level of protection.

However, in contrast, the devaluation of care workers persists even during the pandemic. One state, Missouri, issued an emergency rule providing presumptive eligibility but its emergency rule only covers law enforcement, firefighters, and emergency medical technicians and does not include nurses or other health care workers. Of the six states that provide presumptive eligibility for nurses or health care workers only two states — Kentucky and Illinois — provide presumptive eligibility for nearly all of the workers deemed essential during the pandemic.

Business interests also continue to be valued more than the health and lives of nurses and other essential workers. Illinois' initial attempt to provide presumptive workers' compensation eligibility for essential workers is a prime example. Illinois' Workers' Compensation Commission had issued an emergency presumptive eligibility rule that would have covered most workers deemed "essential" during the pandemic, but retail and manufacturing industry groups swiftly filed a lawsuit challenging the rulemaking and a state court has temporarily enjoined the rule. In statements about their lawsuit, industry groups claim that providing presumptive eligibility would "add billions of dollars in costs on Illinois employers[.]"[422] Corporate opposition to presumptive eligibility based on outsized cost should be viewed as an admission by these employers that they prioritize cost over the safety of workers and that they are failing to provide the necessary PPE to their workers that would greatly reduce exposure to Covid-19 in the first place.

On the federal level, members of Congress are also contemplating presumptive benefits for certain workers who contract Covid-19 but, as with other elected bodies, federal legislative proposals sometimes glaringly exclude nurses and other health care workers. The U.S. House of Representatives' fourth legislative stimulus package, the Health and Economic Recovery Omnibus Emergency Solutions Act (HEROES Act) (H.R. 6800), which passed in the House on May 15, 2020, has several workers' compensation presumptions. The HEROES Act would create presumptive workers' compensation eligibility for federal workers, including registered nurses who work for the Veterans Health Administration. The bill also would extend existing federally funded death and disability benefits for "public safety officers" — law enforcement, firefighters, certain chaplains, and FEMA employees — to provide presumptive death and long-term disability benefits for those who die or are permanently disabled from Covid-19, but these benefits would not be available to any nurses, other health care workers, or any other essential workers. As the HEROES Act stalled in the Senate, Congress passed a separate bill, the Safeguarding America's First Responders Act of 2020 (S. 3607), which included the same extension of existing federal funds for public safety officer death and disability benefits that the was included in the HEROES Act. By providing federally funded Covid-19 death and disability benefits only to public safety officers, these bills replicate existing gender inequities in workplace compensation, and Congress continues to exclude nurses and other women-dominated caring professions from workplace benefits and protections. President Trump signed Safeguarding America's First Responders Act of 2020 into law on August 14, 2020. Notably, however, a bill introduced in the U.S. House separately from the HEROES Act by Congresswoman Carolyn Maloney (D-NY-12), the Pandemic Heroes Compensation Act of 2020 (H.R. 6909), would provide special compensation for nurses and other essential workers who contract or die from Covid-19 similar to the September 11th Victims Compensation Fund, although the bill does not fix the amount of compensation that would be available.

Essential Worker Pay

Increased pay for workers deemed essential during the pandemic is an important pandemic effects mitigation measure. Fairness demands providing additional compensation to people who, by virtue of being required to work outside their homes during a pandemic, are exposed to extreme working conditions. While nurses always deserve fair and equitable wages, an essential worker pay differential is specifically meant to compensate workers who have been excluded from governmental orders and public health guidance to stay at home because their work has been deemed "essential" or "critical" and, thus, are being forced to risk exposure to Covid-19 that is higher than government has prescribed as safe. More simply put, because the labor of nurses and other essential workers is vital to our collective well-being, coupled with the fact that working during a pandemic adds complexity and danger for them and their families compared to those sheltering at home, these workers deserve to be paid more.

Sometimes the term "hazard pay" is mistakenly used to describe this kind of mitigation measure, but using this term to describe an essential worker pay differential or premium is a misnomer. Hazard pay, by definition, is meant to compensate a worker from exposure to a hazard that cannot be mitigated. Consistent with the historical use of the term, the U.S. Department of Labor defines "hazard pay" as "additional pay for performing hazardous duty or work … that causes extreme physical discomfort and distress which is not adequately alleviated by protective devices."[423] Key to the difference between hazard pay and essential worker pay is that hazard pay compensates for a workplace danger that is "not adequately alleviated by protective devices." As described above in this part, there are numerous measures that can reduce workers' risk of exposure to Covid-19, including proper employer provision of personal protective equipment to workers and other policies that would reduce the risk of exposure. Additionally, as discussed above in "Effects of the Covid-19 Pandemic on Nurses" in Part II, the pandemic can have psychological effects on nurses and can create moral distress for nurses, which cannot be alleviated by protective equipment or reduced risks of exposure.

The meat and poultry industries' response to the pandemic provides one of the most egregious examples of employers using temporary wage bonuses in attempts to absolve themselves of employers' legal and moral obligations to keep workplaces safe and protect workers. Aside from health care workers, some of the most massive workplace Covid-19 outbreaks in the U.S. have been in meat and poultry processing plants.[424] For example, both Tyson Foods Inc., the second largest processor and marketer of chicken, beef, and pork in the world, and Smithfield Foods offered a single $500 bonus to workers who maintained good attendance after meat and poultry processing workers' across the country began organizing labor actions, including sickouts and refusals to work in unsafe conditions, and demanding PPE, sick leave, and plant shutdowns when outbreaks occur.[425] Tying the bonuses to attendance but without providing proper protections and sick leave for workers as they had demanded made clear that the company intended the pay to be a trade-off for worker safety. Never admitting that the bonus was an attempt to quell worker organizing, the company announced a second $500 bonus, again tied to good attendance, after it was apparent that the initial bonus was not enough to entice workers back on the job. Presently, with President Trump's invocation of the Defense Production Act to keep meat and poultry processing plants open despite the massive outbreaks of Covid-19 among workers, workers are back on processing lines without adequate protections, and it seems unlikely that meat and poultry corporations will offer these workers any additional pay.

Unlike the vast majority of health care and other essential employees working during the Covid-19 pandemic, certain federal workers are entitled to a pay premium of up to 25 percent for work duty "involving unusual physical hardship or hazard."[426] This kind of hazard differential is available if a worker is exposed to or must "work with or in close proximity" to "virulent biologicals[.]"[427] However, the statute providing federal workers with hazard pay does not apply to most Veterans Health Administration workers, who represent the vast majority of the health care workers whom the federal government employs. The federal employee hazard pay statute replicates the devaluation for care work by excluding nurses, physicians, and many other health care workers at Veterans Affairs Medical Centers.

The U.S. House of Representatives' fourth complete Covid-19 legislative package, the HEROES Act (H.R. 6800), would provide a "pandemic premium pay" to "essential workers." The legislation would create a federal fund, called the Covid-19 Heroes Fund, that would provide "essential workers" a $13 per hour premium on top of regular wages. Premium funds would be capped per individual at $10,000 for any worker currently earning less than $200,000 annually minus employer payroll taxes on such wages and at $5,000 for any worker currently earning more than $200,000 per year minus employer payroll taxes on such wages. Premiums would be retroactive to the end of January 2020 and eligibility for funds would end at the end of 2020. Importantly, however, the premium pay would only be available

and employers would be responsible for accurately paying out funds to eligible workers.

Before the introduction of the House's HEROES Act, Democratic Party leaders in the U.S. Senate reported similar draft plans to include, in their fourth Covid-19 legislative stimulus package, a proposal to provide a "pandemic premium pay" to workers in "essential industries[.]"[428] The Senate Democrats' plan is similar to the proposal included in the HEROES Act but with the upper cap at $25,000. It would also make funds available to provide health and home care workers and first responders a $15,000 recruitment incentive.

The HEROES Act also falls short of remedying the unequal compensation for Veterans Health Administration (VHA) nurses. Although the bill would provide presumptive workers' compensation eligibility for federal workers on duty who contract or are exposed to Covid-19, including VHA nurses, the bill would not address the fact that Title 38 federal workers are not entitled to a 25 percent hazard differential like many other federal workers.

Other Measures to Mitigate the Effects of the Pandemic on Nurses

There are numerous other measures that employers and government could be providing to nurses that could mitigate the pandemic's impact on nurses and their families. These mitigation measures should not only address the physical impact nurses face from exposure to or contraction of Covid-19 but should also address the mental and psychological impacts that stem from pandemic-related moral distress, moral injury, and trauma as described in Part II above.

First, at the most basic level of mitigation measures that employers could take for the impact of the pandemic on nurses, employers must and should be responsible for identifying and investigating potential worker exposures. Employers should be providing nurse health monitoring and infectious disease surveillance not only for nurses providing care to suspected or confirmed Covid-19 patients but for all nurses and other workers during the pandemic. Implementing exposure incident procedures, where employers identify and investigate potential worker exposures, is critical in ensuring that transmission of the virus is identified and controlled in workplaces. Part of employers' monitoring responsibilities should include logging contacts and potential exposures of nurses and other workers to Covid-19 patients and persons under investigation. This monitoring must include regular Covid-19 testing for all nurses for free and without restrictions as to when a nurse can be tested. As described above, it has been persistently difficult for nurses to get tested, which can rapidly cascade into additional unnecessary exposures to the virus as well as the mental and psychological impact that nurses bear when they are unsure if they have become a vector for the virus. Employers should also provide free testing to the families and household members of nurses who are exposed to Covid-19. Extending health monitoring to nurses and other health care workers' families during the pandemic would be a recognition that, by calling on nurses to report to work during the pandemic, employers ask not only that nurses increase their risk of exposure to Covid-19 but are also asking that nurses' family members and household increase their risk of exposure to Covid-19.

Additionally, open and continuous communication by employers about potential workplace exposures to suspected or confirmed Covid-19 cases goes hand in hand with testing. As part of this responsibility, employers should have procedures for notifying nurses and other employees of exposures to Covid-19 and procedures for obtaining testing and other services after a workplace exposure to the virus. Employers sometimes are best positioned to conduct immediate contact tracing among their own workforce and should not wait until local public health agencies initiate contact tracing to identify and inform nurses, other health care workers, patients, and the public about potential exposures. If employers do conduct contact tracing, they can and should employ nurses to do that job.

If nurses are exposed to or contract Covid-19, employers should be obliged not only to provide, as described above, monetary compensation to nurses through workers' compensation and essential worker pay as well as paid precautionary leave, but employers should also provide other support services to nurses that could assist them in the cascade of effects that results from exposure or contraction of the virus. Support services include the provision of free temporary housing accommodations for nurses who care for suspected or confirmed Covid-19 patients so that they have the option of physical distancing from their household, reducing the risk of

The labor of nurses and other essential workers is vital to our collective well-being.

transmitting the disease to their families and neighbors. Similarly, employers should pay for child and elder care for nurses' family members to alleviate some of the added domestic caregiving burdens that nurses may face as a result of the pandemic. Other measures employers could adopt to support nurses during the pandemic including providing meals per diem and transportation to reduce nurses' exposure to Covid-19 while going to and from work.

In addition to health monitoring, testing, and support services for nurses, employers should also offer medical follow-up services free of charge to all exposed employees and should pay for all medical expenses that nurses incur to test for Covid-19 or to treat Covid-19 if nurses contract the virus. While some testing and medical treatment expenses may be covered by workers' compensation, employers should be responsible for paying for any medical costs that workers incur related to Covid-19. In the same vein, employers should provide short-term disability, long-term care, or death benefits for any nurses or their family members who contract Covid-19.

Considering the psychological trauma, moral distress, and moral injury that nurses are facing on the front lines of the pandemic, employers should also ensure that nurses have access to and receive crisis counseling and mental health services. While employers should have a moral and legal duty to provide mental health services to nurses and other health care workers, employers should pay for any third-party counseling and mental health services that a nurse chooses to use rather than providing such services in-house. Given the fact that much of the psychological trauma and moral distress is attributable, at least in part, to the actions and inactions of health industry employers to protect nurses and their patients, it is exceedingly important that any crisis counseling or mental health services are provided by entities other than the nurses' employer. Employee assistance programs and employer-sponsored wellness programs are not sufficient and, indeed, may contribute to stress and psychological trauma if the very entity that causes stress and trauma is the only option for nurses to receive free counseling or mental health services.

While employers should be providing these mitigation measures and services to nurses, the onus of ensuring that nurses and other frontline workers get these measures and services lies also with the government. Local, state, or federal, government at all levels can supplement and, in some cases, directly provide the measures discussed here. From testing and contact tracing, to temporary housing and mental health services, government is sometimes best positioned to ensure that these resources are available to the nurses and other frontline workers who may need these services. Again, contact tracing can be done by nurses who have the skill set and knowledge of infectious diseases to conduct contract tracing in an effective and efficient manner.

An important mitigation measure that government can take, of course, is ensuring guaranteed health care for all. The Covid-19 pandemic has exacerbated the problems in our fragmented, multi-payer health care system, and it is clear that a single-payer Medicare for All health care system is the only solution to the health care crisis in the United States. A Gallup poll in May 2020 reported that 1 in 7 adults in the U.S. (14 percent) would avoid seeking health care for Covid-19 symptoms (fever or dry cough) for themselves or a household member because they were concerned about their ability to pay for it.[429] In a Kaiser Family Foundation survey also from late May 2020, nearly half of all adults in the U.S. (48 percent) reported that they or a family member have skipped or delayed medical care since the beginning of the pandemic.[430] In the same survey, about 3 in 10 adults (31 percent) reported falling behind on bills or had problems affording household expenses, with 13 percent saying they have difficulty paying for food and with 11 percent saying they have difficulty paying medical bills.

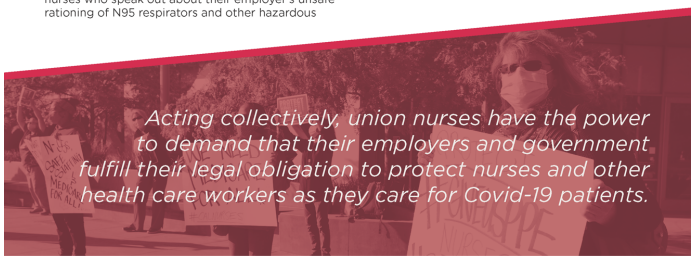
The pandemic has reinforced what we already know — that private health insurance and our fragmented multi-payer system forces millions to live on a health care precipice. Tens of millions of workers and their dependents have lost their employment-based health insurance. Extended employment-based health coverage under the Consolidated Omnibus Budget Reconciliation Act (COBRA) is likely to be unaffordable for an overwhelming majority of those suddenly unemployed, and even for the few who may have the finances to afford full COBRA premiums, the coverage is only temporary. Those who may be able to afford a new private insurance plan or those who may be eligible for health insurance subsidies under the Patient Protection and Affordable Care Act will be subject to disruptions in care and changes to their doctors. Millions of others who may still have employment-based coverage have lost income in the past few months and may not be able to afford out-of-pocket health costs. Out-of-pocket private health insurance costs, including copayments, coinsurance, and deductibles, continue to make private health insurance unaffordable for millions, and, for working families who have lost income loss during the pandemic, these financial barriers have increased. Government, both on the state and national levels, can and should ensure that they take immediate steps to provide guaranteed universal health care under a single-payer system and to take private insurance out of health care.

COLLECTIVE ACTION NECESSARY TO MAKE CHANGE

Acting collectively, union nurses have the power to demand that their employers and government fulfill their legal obligation to protect nurses and other health care workers as they care for Covid-19 patients. Collective action not only enables nurses to create long-term solutions to obtain protections and other mitigation measures during the pandemic, but collective action may help begin to address and push back against moral distress and injury. By acting collectively, nurses can begin to address and fight back against the constraints — made by employers and government — that are preventing nurses from doing what they know is right and that result in moral distress. Thus, unions and the collective power of union nurses serve as an important measure that nurses can use against the moral distress and injury that they have experienced during the pandemic.

Union nurses have also won some of these mitigation policies at the facility level by taking action together. Since the pandemic began, NNU nurses have held hundreds of actions at their facilities across the country fighting for PPE, safe staffing, and other workplace protections necessary for nurses and their patients during the pandemic. Through their collective bargaining agreements, many union nurses already had paid sick and family leave and, as the pandemic spread throughout our nation's hospitals, union nurses have demanded and won expanded paid leave policies for Covid-19-related quarantine as well as presumptive eligibility for Covid-19 infections. Other wins at union facilities include employers providing N95s for all nurses assigned suspected or confirmed Covid-19 patients, universal masking policies, temporary housing and childcare for nurses exposed to Covid-19, maintenance of safe staffing ratios, and prioritized testing for exposed nurses.

Importantly, unions have been able to protect nurses who speak out about their employer's unsafe rationing of N95 respirators and other hazardous working conditions while treating Covid-19 patients. At Providence Saint John's Health Center in Santa Monica, California, NNU nurses acted together to object to being assigned Covid-19 patients without being provided an N95 respirator. After ten nurses were suspended for the action, nurses who were still working rallied in solidarity with the suspended nurses and together, through a series of escalating actions, were able to win not only universal N95 respirators for all workers treating suspected or confirmed Covid-19 patients but also reinstatement for the ten suspended nurses. NNU also successfully filed a complaint with Cal/OSHA on Providence Saint John's denial of N95 respirators to nurses, and Cal/OSHA cited Providence Saint John's in October for three separate violations, including violations of Cal/OSHA's aerosol transmissible disease standard and the injury and illness prevention program. In Chicago, NNU nurses at Jackson Park Hospital and Medical Center, located in one of the communities hardest hit by the Covid-19 pandemic, ran a successful campaign to hold hospital management accountable to its promises to provide better staffing and improved access to PPE. After the Jackson Park Hospital nurses sat in during shift change, hospital management unlocked the PPE storage area and provided the additional staff necessary for nurses to provide care to Covid-19 patients safely. Nurses in the intermediate care unit at Mountain View Hospital and Medical Center in Las Vegas won the ability to dispose of gowns after each patient. Gastroenterology unit nurses at Doctors Medical Center in Modesto, California fought back after management moved their work to the operating room and assigned operating room nurses to do gastroenterology procedures. These nurses won and are back doing their work in their respective units. In Maine, nurses at Northern Light Eastern Maine Medical Center and its affiliated home care agency Northern Light Homecare and Hospice won N95 use for care of Covid-19 positive patients and patients under investigation. This is just the beginning of RN victories through collective union action across the country.



Nurses also continue to use their collective voice to demand that government at all levels establish and enforce workplace protections and benefits for nurses and other frontline workers. Union nurses have held some of the first virtual lobby days despite the physical closure of federal and state legislative building. In Minnesota, union nurses lobbied elected state officials to win presumptive eligibility for nurses and other frontline workers, and union nurses are doing the same in California and Illinois. On the federal level, National Nurses United has taken the lead to advocate for the health and safety of all nurses during the Covid-19 pandemic. Union nurses lobbied Congress to fund and mandate increased production of PPE as well as to require that OSHA promulgate an emergency temporary standard to provide enforceable occupational protections for nurses and other frontline workers. NNU continues to fight for federal and state legislation to increase PPE production, establish enforceable health and safety standards on Covid-19 and infectious diseases, obtain presumptive workers' compensation eligibility, and many of the other prevention and mitigation measures discussed above. Union nurses have testified as witnesses before Congress on needed Covid-19 protections, including testimony by NNU Executive Director Bonnie Castillo, RN before the U.S. House of Representatives Committee on Oversight and Reform, and testimony by NNU nurse Talisa Hardin, RN before the Select Subcommittee on the Coronavirus Crisis of the U.S. House of Representatives Committee on Oversight and Reform. NNU Vice President Irma Westmoreland, RN also submitted written testimony to the U.S. House of Representatives Committee on Veterans Affairs for a hearing on assessing the Veterans Affairs response to Covid-19. NNU has held several public vigils for nurses who have died after contracting Covid-19, including two outside the white House where union nurses read the names of those nurses who have passed.

Union nurses are fighting on regulatory and legislative fronts as well as reaching out to the general public through extensive media outreach.[431] Among NNU's work on the regulatory front, the union has petitioned federal OSHA for an infectious disease standard that would protect health care workers from Covid-19 and other infectious diseases.[432] On the legislative front, NNU nurses are fighting for the inclusion of an OSHA standard in Covid-19 relief bills.[433] NNU also continuously has called on Congress and the Trump administration to fully invoke the Defense Production Act to immediately increase production of PPE, medical equipment, and testing supplies.[434] Finally, NNU is demanding that states close until they can be opened safely.[435]

PART IV. CONCLUSION

Nurses' labor has been devalued historically. Comparisons between different occupations expose the gender bias at its roots. Gender, racial, and ethnic biases have been found within the nursing profession. Through unionization, nurses have collectively fought back and made tremendous gains in wages, benefits, and health and safety protections and reduced gender, racial, and ethnic biases. Unfortunately, biases persist. Gender bias in presumptive eligibility for workers' compensation between predominantly male and predominantly female occupations is particularly deplorable during the Covid-19 pandemic.

As this paper has shown, nurses are among the most likely to contract Covid-19 on the job. Furthermore, even those who do not contract the illness may experience moral distress and injury as well as long-term adverse mental health effects. Nurses have been, and continue to be, betrayed by those with legal and ethical obligations to ensure their health and safety in the workplace. Both the risks and effects of the Covid-19 pandemic can be mitigated. The risks can be mitigated through provision of optimal PPE, the creation and enforcement of occupational health and safety standards, and other measures to reduce exposure. The effects of the pandemic can be mitigated through paid sick time and quarantine leave, presumptive eligibility for Covid-19 workers' compensation, and essential worker pay.

NNU calls on employers and the leaders of local, state, and federal governments to act now to mitigate both the risks and the effects of the Covid-19 pandemic on nurses and other health care workers.

APPENDICES

ACRONYM LIST

ARDS	Acute Respiratory Distress Syndrome
ATD	Aerosol transmissible disease
BIPOC	Black, Indigenous, and people of color
Cal/OSHA	California Division of Occupational Safety and Health
CDC	Centers for Disease Control and Prevention
CDPH	California Department of Public Health
CNA	California Nurses Association
COBRA	Consolidated Omnibus Budget Reconciliation Act
EUA	Emergency use authorization
FDA	U.S. Food and Drug Administration
HEROES Act	Health and Economic Recovery Omnibus Emergency Solutions Act
ICU	Intensive Care Unit
MIOSHA	Michigan Occupational Safety and Health Administration
MRSA	Methicillin-resistant staphylococcus
NASEM	National Academies of Sciences, Engineering, and Medicine
NNU	National Nurses United
OIG	Office of the Inspector General
OSH	Occupational Safety and Health
OSHA	Occupational Safety and Health Administration
PAPR	Powered air-purifying respirator
PMIE	Potentially morally injurious event
PPE	Personal protective equipment
PTSD	Post-traumatic stress disorder
PUI	Persons under investigation
RN	Registered nurse
SARS	Severe Acute Respiratory Syndrome
VHA	Veterans Health Administration
WHO	World Health Organization

INDEX OF FIGURES AND TABLES

Figures

Tables

ENDNOTES

1 This data is from an unpublished update as of November 13, 2020, of National Nurses United's September 2020 report on registered nurse deaths and infections from Covid-19, "Sins of Omission: How Government Failures to Track Covid-19 Data Have Led to More Than 1,700 Health Care Worker Deaths and Jeopardize Public Health." National Nurses United. Sep 2020. https://act.nationalnursesunited.org/page/-/files/graphics/0920_Covid19_SinsOfOmission_Data_Report.pdf.

2 Ibid.

3 Ibid.

4 U.S. Bureau of Labor Statistics. "Employed persons by detailed occupation, sex, race, and Hispanic or Latino ethnicity, 2019." Current Population Survey. U.S. Department of Labor. Jan 2020. https://www.bls.gov/cps/cpsaat11.pdf.

5 McFarling U. "The Pandemic is Taking an Outsized Toll on Filipino American Nurses." *STAT*. Apr 28, 2020. https://www.statnews.com/2020/04/28/coronavirus-taking-outsized-toll-on-filipino-american-nurses.

6 U.S. Bureau of Labor Statistics (Jan 2020).

7 Stokes E et al. "Coronavirus Disease 2019 Case Surveillance—United States, January 22–May 30, 2020." *MMWR Morb Mortal Wkly Rep*. U.S. Department of Health and Human Services. Jun 19, 2020; 69(24):759–65. doi:10.15585/mmwr.mm6924e2.

8 National Center for Health Workforce Analysis. Health Resources and Services Administration. "Brief Summary of Results from the 2018 National Sample Survey of Registered Nurses." U.S. Department of Health and Human Services. 2019. https://bhw.hrsa.gov/sites/default/files/bhw/health-workforce-analysis/nssrn-summary-report.pdf.

9 Ibid.

10 Morley G et al. "What is 'Moral Distress'? A Narrative Synthesis of the Literature." *Nurs Ethics*. May 2019; 26(3): 646–62. doi:10.1177/0969733017724354. Citing Jameton A. Nursing Practice: The Ethical Issues. 1984. Prentice-Hall.

11 Varcoe C et al. "Moral Distress: Tensions as Springboards for Action." *HEC Forum*. Mar 2012; 24(1): 51–62. doi:10.1007/s10730-012-9180-2.

12 Williamson V et al. "COVID-19 and Experiences of Moral Injury in Front-Line Key Workers." Occup Med (Lond.). Apr 2, 2020; kqaa052. doi:10.1093/occmed/kqaa052. Citing Griffin B et al. "Moral Injury: An Integrative Review." *J Trauma Stress*. Jun 2019; 32: 350–62. doi:10.1002/jts.22362, and Williamson V et al. "The Impact of Trauma Exposure and Moral Injury on UK Military Veterans: A Qualitative Study." *Eur J Psychotraumatol*. Jan 9, 2020; 11(1):1704554.

13 Greenberg N et al. "Managing Mental Health Challenges Faced by Healthcare Workers During COVID-19 Pandemic." *BMJ*. Mar 26, 2020; 368:m1211. doi:10.1136/bmj.m1211.

Jannsen S. "Moral Injury in Health Care and COVID-19." *Social Work Today*. Apr 6, 2020. https://www.socialworktoday.com/archive/exc_040620.shtml

Mantri S et al. "Identifying Moral Injury in Healthcare Professionals: The Moral Injury Symptom Scale-HP." *J Relig Health*. Jul 17, 2020. doi:10.1007/s10943-020-01065-w.

Stoycheva V. "For Health Workers, COVID-19 Can Be a Moral Injury Pandemic." *Psychol Today*. Apr 13, 2020. https://www.psychologytoday.com/us/blog/the-everyday-unconscious/202004/health-workers-covid-19-can-be-moral-injury-pandemic.

Williamson V et al. (Apr 2, 2020). Note that several empirical studies discussed below in Part II, "Adverse Mental Health Effects" also document that psychological distress is widespread.

14 Litz B, Kerig P. "Introduction to the Special Issue on Moral Injury: Conceptual Challenges, Methodological Issues, and Clinical Applications." *J Traumatic Stress*. Jun 2019; 32(3):341–49.

15 Jacobs A. "Grave Shortages of Protective Gear Flare Again as Covid Cases Surge." *The New York Times*. Jul 8, 2020. https://www.nytimes.com/2020/07/08/health/coronavirus-masks-ppe-doc.html.

Lacy A. "Kaiser Permanente Threatened to Fire Nurses Treating COVID-19 Patients for Wearing Their Own Masks, Union Says." *The Intercept*. Mar 24, 2020. https://theintercept.com/2020/03/24/kaiser-permanente-nurses-coronavirus.

16 O'Leary L. "The Modern Supply Chain is Snapping." *The Atlantic*. Mar 19, 2020. https://

www.theatlantic.com/ideas/archive/2020/03/supply-chains-and-coronavirus/608329.

17 For examples, see discussion in Part III, "Collective Action Necessary to Make Change."

18 With many health systems and health care providers postponing most elective surgeries and routine medical procedures, the central focus has been on hospitals' practices around managing patients with confirmed or suspected cases of COVID-19. There are problems outside of hospitals as well. Moreover, as the health care sector is reopening prematurely, these issues will be found increasingly in nonhospital settings.

19 Three studies on COVID-19 airborne transmissibility include:

Bourouiba L. "Turbulent Gas Clouds and Respiratory Pathogen Emissions: Potential Implications for Reducing Transmission of COVID-19." *JAMA*. Mar 26, 2020; 323(18): 1837–38. doi:10.1001/jama.2020.4756.

van Doremalen N et al. "Aerosol and Surface Stability of SARS-CoV-2 as Compared with SARS-CoV-1." *N Engl J Med*. Apr 16, 2020; 382: 1564–67. doi:10.1056/NEJMc2004973.

Wolfel R et al. "Virological Assessment of Hospitalized Patients with COVID-2019." *Nature*. Apr 1, 2020; 581: 465–69 (2020). doi:10.1038/s41586-020-2196-x.

For additional studies, see National Nurses United's COVID-19 bibliography at this link: https://www.nationalnursesunited.org/covid-19.

20 Three studies on the need for respirators to protect health care workers from COVID-19 infections include:

Chen W et al. "To Protect Healthcare Workers Better, To Save More Lives." *Anesth & Analg*. Jul 2020; 131(1): 97–101. doi:10.1213/ANE.0000000000004834.

Feldman O et al. "Exposure to a Surrogate Measure of Contamination from Simulated Patients by Emergency Department Personnel Wearing Personal Protective Equipment." *JAMA*. Apr 27, 2020; 323(20): 2091–93. doi:10.1001/jama.2020.6633.

Liu M et al. "Use of Personal Protective Equipment Against Coronavirus Disease 2019 by Healthcare Professionals in Wuhan, China: Cross Sectional Study." *BMJ*. Jun 10, 2020; 369: m2195. doi:10.1136/bmj.m2195.

For additional studies, see National Nurses United's COVID-19 bibliography at: https://www.nationalnursesunited.org/covid-19.

21 An open letter to the World Health Organization from 239 scientists also invokes the precautionary principle but does not make any recommendations for health care settings.

Morawska L, Milton D. "It is Time to Address Airborne Transmission of COVID-19." *Clin Infect Dis*. Jul 6, 2020; ciaa939. doi:10.1093/cid/ciaa939.

22 Jha A. "We Need the Real CDC Back, and We Need It Now." *STAT*. Apr 29, 2020. https://www.statnews.com/2020/04/29/we-need-the-real-cdc-back-and-we-need-it-now.

Luthra S, Jewett C. "Widely Used Surgical Masks Are Putting Health Care Workers at Serious Risk." *Kaiser Health News*. Apr 20, 2020. https://khn.org/news/widely-used-surgical-masks-are-putting-health-care-workers-at-serious-risk.

Rollin P. "Why is the CDC 'Sitting on the Sidelines' in the Covid-19 fight?" *STAT*. Mar 26, 2020. https://www.statnews.com/2020/03/26/cdc-veteran-asks-why-is-cdc-sitting-on-the-sidelines-covid-19-fight.

23 California Hospital Association. "Letter to the California Congressional Delegation." California Hospital Association. Mar 12, 2020. https://www.calhospital.org/sites/main/files/file-attachments/ca_delegation_-_covid-19_requests_-_final.pdf.

Gollan J, Shogren E. "31,000 and Counting." The Center for Investigative Reporting. *Reveal News*. May 11, 2020. https://www.revealnews.org/article/31000-and-counting. Link to letter from Washington Congressional Delegation to CDC Director Redfield dated March 4, 2020 provided in article: https://www.documentcloud.org/documents/6884965-WA-Delegation-Letter-to-Redfield.html.

24 Centers for Disease Control and Prevention. "Interim Infection Prevention and Control Recommendations for Patients with Confirmed Coronavirus Disease 2019 (COVID-19) or Persons Under Investigation for COVID-19 in Healthcare Settings." U.S. Department of Health and Human Services. Mar 10, 2020. Retrieved from Wayback Machine. https://web.archive.org/web/20200311063403/https://www.cdc.gov/coronavirus/2019-ncov/infection-control/control-recommendations.html.

25 Ibid.

26 Centers for Disease Control and Prevention. "Strategies for Optimizing the Supply of Facemasks." U.S. Department of Health and Human Services. Mar 17, 2020. Retrieved

from the Wayback Machine: https://web.archive.org/web/20200318213323/https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/face-masks.html. Although the CDC continues to refer to homemade masks, it has since deleted references to scarves and bandanas as examples. The current version of this webpage, dated June 28, 2020, is available here: https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/face-masks.html.

27 Sanders T et al. "As Doctors and Nurses Grow Desperate for Protective Gear, They Fear They're Infecting Patients." *ProPublica*. Mar 19, 2020. https://www.propublica.org/article/as-doctors-and-nurses-grow-desperate-for-protective-gear-they-fear-infecting-patients.

28 Williamson V et al. (Apr 2, 2020). Citing Williamson V et al. (May 22, 2018).

29 Editorial Board. "Why is OSHA AWOL?" *The New York Times*. Jun 21, 2020. https://www.nytimes.com/2020/06/21/opinion/coronavirus-osha-work-safety.html.

30 Mason D, Friese C. "Protecting Health Care Workers Against COVID-19—and Being Prepared for Future Pandemics." *JAMA Health Forum*. Mar 19, 2020. https://jamanetwork.com/channels/health-forum/fullarticle/2763478. Citing Kopp E. "Hospitals Want to Kill a Policy Shielding Nurses from COVID-19 Because There Aren't Enough Masks." *Roll Call*. Mar 3, 2020. https://www.rollcall.com/2020/03/13/hospitals-want-to-kill-a-policy-shielding-nurses-from-covid-19-because-there-arent-enough-masks.

See also American Hospital Association. "Letter to Nancy Pelosi." American Hospital Association. May 14, 2020. https://www.aha.org/system/files/media/file/2020/05/web-AHALettertoHouseonHEROESAct051420final.pdf.

31 American Hospital Association. "Contact Your Representative and Ask Them to Urge House Leadership to Withdraw Provision in Coronavirus Funding Package." American Hospital Association. Mar 12, 2020. https://www.aha.org/system/files/media/file/2020/03/contact-your-representative-ask-them-urge-house-leadership-withdraw-provision-coronavirus-funding-package-3-12-2020.pdf.

Kopp E (Mar 3, 2020).

32 National Nurses United. "Petition for an Emergency Temporary Standard on Emerging Infectious Diseases in Response to COVID-19." National Nurses United. Mar 4, 2020. https://act.nationalnursesunited.org/page/-/files/graphics/NNUPetitionOSHA03042020.pdf.

AFL-CIO. "Petition to Secretary Scalia for an OSHA Emergency Temporary Standard for Infectious Disease." AFL-CIO. Mar 6, 2020. https://aflcio.org/statements/petition-secretary-scalia-osha-emergency-temporary-standard-infectious-disease.

33 Occupational Safety and Health Administration. "COVID-19 Response Summary." U.S. Department of Labor. Nov. 23, 2020. https://www.osha.gov/enforcement/covid-19-data.

Whoriskey P et al. "Thousands of OSHA Complaints Filed Against Companies for Virus Workplace Safety Concerns, Records Show." *The Washington Post*. Apr 16, 2020.

Editorial Board, *The New York Times* (Jun 21, 2020).

34 Cox J. "What Happens if You and Daddy Die?" *The Washington Post*. Apr 28, 2020. https://www.washingtonpost.com/graphics/2020/local/children-doctors-nurses-coronavirus-death/.

Cox J et al. "'Dad, Are You Okay?': Doctors and Nurses Fighting Pandemic Fear Infecting Their Families?" *The Washington Post*. Mar 18, 2020. https://www.washingtonpost.com/local/dad-are-you-okay-doctors-and-nurses-fighting-pandemic-fear-infecting-their-families/2020/03/18/8beefc66-689b-11ea-b313-df458622c2cc_story.html.

Forgrave R. "Mask Shortage Hits Home for Minnesota Nurse." *StarTribune*. Mar 21, 2020. https://www.startribune.com/mask-shortage-hits-home-one-nurse-s-story-of-looking-for-protective-masks/568983442/.

Luis C, Vance C. "A Pandemic Crisis: Mentoring, Leadership, and the Millennial Nurse." *Nursing Economic$*. May/Jun 2020; 38(3):152–63. http://www.nursingeconomics.net/necfiles/2020/MJ20/152.pdf.

McConnell D. "Balancing the Duty to Treat with the Duty to Family in the Context of the COVID-19 Pandemic." *J Med Ethics*. Jun 2020; 46(6): 360–63. doi:10.1136/medethics-2020-106250.

Sacharczyk T. "Nurse Seeks Balance Between Caring for Patients and Her Family." NBC 10 News. Mar 25, 2020. https://turnto10.com/news/local/nurse-seeks-balance-between-caring-for-patients-and-her-family.

Greenberg N et al. (Mar 26, 2020).

35 "Doctors, Nurses Leave Homes to Protect Families from Virus." *Associated Press*. Apr 5, 2020. https://apnews.com/8697a4883bf8799aa235c393ed505bfe.

Guarino B. "Nurses, Doctors Take Extreme Precautions to Avoid Infecting Family Members." *The Washington Post*. Apr 16, 2020. https://www.washingtonpost.com/health/2020/04/16/nurses-doctors-are-taking-extreme-precautions-avoid-bringing-coronavirus-home.

Halbrook L. "As a Nurse, I Took an Oath to Take Care of People. But My Children and Husband Didn't Sign Up to Get Sick." *TIME*. Apr 9, 2020. https://time.com/collection/coronavirus-heroes/5816899/nurse-family-coronavirus.

Hardin T. "Written Testimony." Briefing, Heroes of the Coronavirus Crisis: Protecting Front-line and Essential Workers During the Pandemic, before Select Subcommittee on the Coronavirus Crisis of the House Oversight Committee. May 21, 2020. https://coronavirus.house.gov/sites/democrats.coronavirus.house.gov/files/Talisa%20Hardin%20Statement.pdf.

Lee L. "Sleeping in the Attic: How a Nurse is Shielding Her Family from Coronavirus." *Business Insider*. Apr 4, 2020. https://www.businessinsider.com/nyc-nurse-shielding-family-coronavirus-exposure-2020-4.

McFarling U (Apr 28, 2020); Cox J (Apr 28, 2020); Cox J et al. (Mar 18, 2020); Forgrave R (Mar 21, 2020); Jacobs A (Jul 8, 2020); Luis C, Vance C (May/Jun 2020); McConnell D (Jun 2020); Sacharczyk T (Mar 25, 2020).

36 Greenberg N et al. (Mar 26, 2020); Jannsen S (Apr 6, 2020); Stoycheva V (Apr 13, 2020).

37 Guarino B (Apr 16, 2020).

38 Cox J (Apr 28, 2020); Cox J et al. (Mar 18, 2020); "Doctors, Nurses..." (Apr 5, 2020); Guarino B (Apr 16, 2020); Lee L (Apr 4, 2020); McFarling U (Apr 28, 2020).

39 "Doctors, Nurses..." (Apr 5, 2020); Hardin T (May 21, 2020); McFarling U (Apr 28, 2020).

40 Rosenbaum L. "Facing Covid-19 in Italy—Ethics, Logistics, and Therapeutics on the Epidemic's Front Line." *N Engl J Med*. Mar 18, 2020; 382: 1873–75. doi:10.1056/NEJMp2005492.

Ridderbusch K. "For Hospital Chaplains, Coronavirus Has Shifted Spiritual Care." *U.S. News and World Report*. Apr 22, 2020. https://www.usnews.com/news/healthiest-communities/articles/2020-04-22/coronavirus-shifts-spiritual-care-for-hospital-chaplains.

41 Lai J et al. "Factors Associated with Mental Health Outcomes Among Health Care Workers Exposed to Coronavirus Disease 2019." *JAMA Netw Open*. Mar 23, 2020; 3(3): e203976. doi:10.1001/jamanetworkopen.2020.3976.

Lin Z et al. "Psychological Burden in Health Care Professionals in Chinese Cities During the Coronavirus Disease 2019 (COVID-19) Outbreak." *SSRN* preprints with *The Lancet*. Apr 11, 2020. doi:10.2139/ssrn.3576782.

Liu Z et al. "Mental Health Status of Doctors and Nurses During COVID-19 Epidemic in China." *SSRN* preprints with *The Lancet*. Mar 18, 2020. doi:10.2139/ssrn.3551329.

Rossi R et al. "Mental Health Outcomes Among Frontline and Second-Line Health Care Workers During the Coronavirus Disease 2019 (COVID-19) Pandemic in Italy." *JAMA Netw Open*. May 28, 2020; 3(5): e2010185. doi:10.1001/jamanetworkopen.2020.10185.

Zhang W et al. "Mental Health and Psychosocial Problems of Medical Health Workers during the COVID-19 Epidemic in China." *Psychother Psychosom*. Apr 9, 2020. doi:10.1159/000507639.

42 Lai J et al. (Mar 23, 2020); Rossi R et al. (May 28, 2020); Zhang W et al. (Apr 9, 2020).

43 Lai J et al. (Mar 23, 2020); Lin Z et al. (Apr 11, 2020); Liu Z et al. (Mar 18, 2020).

44 Lai J et al. (Mar 23, 2020); Lin Z et al. (Apr 11, 2020); Liu Z et al. (Mar 18, 2020); Zhang W et al. (Apr 9, 2020).

45 Lai J et al. (Mar 23, 2020); Zhang W et al. (Apr 9, 2020).

46 Lai J et al. (Mar 23, 2020); Lin Z et al. (Apr 11, 2020); Liu Z et al. (Mar 18, 2020).

47 Lin Z et al. (Apr 11, 2020); Liu Z et al. (Mar 18, 2020).

48 Liu Z et al. (Mar 18, 2020).

49 Lai J et al. (Mar 23, 2020); Lin Z et al. (Apr 11, 2020); Rossi R et al. (May 28, 2020).

50 Rossi R et al. (May 28, 2020).

51 Lin Z et al. (Apr 11, 2020); Liu Z et al. (Mar 18, 2020); Zhang W et al. (Apr 9, 2020).

52 Not every study includes all the themes.

53 Lai J et al. (Mar 23, 2020); Lin Z et al. (Apr 11, 2020); Liu Z et al. (Mar 18, 2020).

54 Shanafelt T et al. Understanding and Addressing Sources of Anxiety Among Health Care Professionals During the COVID-19 Pandemic. *JAMA*. Apr 07, 2020; 323(21): 2133–34. doi:10.1001/jama.2020.5893.

55 National Nurses United. "Unpublished NNU COVID-19 Survey Results." National Nurses United. Aug 20, 2020. The data presented here is a subset of approximately 8,000 nurses who responded that they work on a unit where COVID-19 patients or persons under investigation for COVID-19 might be placed, but it is from the same survey as the one cited as: National Nurses United. "NNU COVID-19 Survey Results." National Nurses United. Jul 28, 2020. https://www.nationalnursesunited.org/sites/default/files/nnu/graphics/documents/0720_Covid19_Survey3_Results_Flyer_REV.pdf.

56 Ibid.

57 Koh D et al. "Risk Perception and Impact of Severe Acute Respiratory Syndrome (SARS) on Work and Personal Lives of Healthcare Workers in Singapore: What Can We Learn?" *Med Care*. Jul 2005; 43: 676–82. doi:10.1097/01.mlr.0000167181.36730.cc.

58 Bai Y et al. "Survey of Stress Reactions Among Health Care Workers Involved with the SARS Outbreak." *Psychiatr Serv*. Sep 1, 2004; 55(9):1055–57. doi:10.1176/appi.ps.55.9.1055.

Maunder R et al. "Factors Associated with the Psychological Impact of Severe Acute Respiratory Syndrome on Nurses and Other Hospital Workers in Toronto." *Psychosom Med*. Jun 1, 2004; 66: 938–42. doi:10.1097/01.psy.0000145673.84698.18.

Maunder R. "The Experience of the 2003 SARS Outbreak as a Traumatic Stress Among Frontline Healthcare Workers in Toronto: Lessons Learned." *Philos Trans R. Soc Lond B Biol Sci*. Jun 2, 2004; 359(1447): 1117–25. doi:10.1098/rstb.2004.1483.

59 Maunder R et al. (Jun 1, 2004); Maunder R (Jun 2, 2004).

60 Centers for Disease Control and Prevention. "Reducing Stigma." U.S. Department of Health and Human Services. Jun 11, 2020. https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/reducing-stigma.html.

Ruiz N et al. "Many Black, Asian Americans Say They Have Experienced Discrimination Amid the COVID-19 Outbreak." Pew Research Center. Jul 1, 2020. https://www.pewsocialtrends.org/2020/07/01/many-black-and-asian-americans-say-they-have-experienced-discrimination-amid-the-covid-19-outbreak.

61 Hawkins D. "Differential Occupational Risk for COVID-19 and Other Infection Exposure According to Race and Ethnicity." *Am J Ind Med*. Jun 15, 2020. 1–4. doi:10.1002/ajim.23145.

62 David E. "Five Ways COVID-19 Might Be Affecting Filipino Americans." *Psych Today*. Apr 15, 2020. https://www.psychologytoday.com/us/blog/unseen-and-unheard/202004/5-ways-covid-19-might-be-affecting-filipino-americans.

Lee J, Yadav M. "The Rise of Anti-Asian Hate in the Wake of Covid-19." *Items, Insights from the Social Sciences*. Social Science Research Council. May 21, 2020. https://items.ssrc.org/covid-19-and-the-social-sciences/the-rise-of-anti-asian-hate-in-the-wake-of-covid-19.

63 Wingfield A. "The Disproportionate Impact of Covid-19 on Black Health Care Workers in the U.S." *Harvard Business Review*. May 14, 2020. https://hbr.org/2020/05/the-disproportionate-impact-of-covid-19-on-black-health-care-workers-in-the-u-s.

64 Wiley M. "'I Feel So Overwhelmed': COVID-19 and Police Violence Takes a Toll on Black Health Care Workers." KQED. Jun 24, 2020. https://www.kqed.org/news/11825898/i-feel-so-overwhelmed-covid-19-and-police-violence-takes-a-toll-on-black-health-care-workers.

65 Watkins A et al. "Top E.R. Doctor Who Treated Virus Patients Dies by Suicide." *The New York Times*. Apr 29, 2020. https://www.nytimes.com/2020/04/27/nyregion/new-york-city-doctor-suicide-coronavirus.html.

66 French L. "Recently Graduated FDNY EMT Dies by Suicide." *EMS1.com*. Apr 27, 2020. https://www.ems1.com/fdny-ems/articles/recently-graduated-fdny-emt-dies-by-suicide-jv07dFa0VFWklajF.

67 See generally: Federici S. *Caliban and the Witch: Women the Body and Primitive Accumulation*. Autonomedia. 2004.

68 Boniol M et al. "Gender Equity in The Health Workforce: Analysis of 104 Countries." *Health Workforce Working Paper 1*. World Health Organization. Mar 2019. https://www.who.int/hrh/resources/gender_equity-health_workforce_analysis/en.

69 U.S. Bureau of Labor Statistics (Jan 2020).

70 International Labour Organization. "Care Work and Care Jobs for the Future of Decent Work." International Labour Office. 2018. https://www.ilo.org/wcmsp5/groups/public/-

--dgreports/---dcomm/---publ/documents/publication/wcms_633135.pdf.

71 Women represent only 47.4 percent of the U.S. workforce but make up 64.4 percent of frontline workers, and women represent 76.8 percent of frontline health care workers in the United States. Nationally, workers of color are overrepresented in the frontline workforce, comprising 41.2 percent of essential workers but only 36.5 percent of the workforce overall. Rho H et al. "A Basic Demographic Profile of Workers in Frontline Industries." Center for Economic and Policy Research. Apr 2020. https://cepr.net/wp-content/uploads/2020/04/2020-04-Frontline-Workers.pdf.

One analysis of frontline workers in the San Francisco Bay Area found that women of color were overrepresented in essential workers during the pandemic, comprising 33 percent of essential workers but only 27 percent of the area's workforce overall. Henderson J et al. "A Profile of Frontline Workers in the Bay Area." *Bay Area Equity Atlas*. May 13, 2020. https://bayareaequityatlas.org/essential-workers.

72 Muench S et al. "Salary Differences between Male and Female Registered Nurses in the United States." *JAMA*. Mar 24/31, 2015; 313(12): 1265–67. doi:10.1001/jama.2015.1487.

73 Goldin C et al. "The Expanding Gender Earnings Gap: Evidence from the LEHD-2000 Census." *Amer. Econ. Rev.: Papers & Proceedings*. May 2017; 107(5): 110–14. doi:10.1257/aer.p20171065.

74 Ibid.

75 Mlambo-Ngcuka P. "COVID-19: Women Front and Centre—Statement by Phumzile Mlambo-Ngcuka, UN Under-Secretary-General and UN Women Executive Director." *UN Women*. Mar 20, 2020. https://asiapacific.unwomen.org/en/news-and-events/stories/2020/03/statement-ed-phumzile-covid-19-women-front-and-centre.

76 National Nurses United. "NNU COVID-19 Survey Results." National Nurses United. Jul 28, 2020. https://www.nationalnursesunited.org/sites/default/files/nnu/graphics/documents/0720_Covid19_Survey3_Results_Flyer_REV.pdf.

77 Ibid.

78 Ibid.

79 National Nurses United. "New Survey of Nurses Provides Frontline Proof of Widespread Employer, Government Disregard for Nurse and Patient Safety, Mainly Through Lack of Optimal PPE." National Nurses United. May 20, 2020. https://www.nationalnursesunited.org/press/new-survey-results.

80 For a summary of problems with decontaminating and reusing respirators see: National Nurses United. "N95 Respirator Decontamination and Reuse is Unsafe." National Nurses United. Mar 30, 2020. https://act.nationalnursesunited.org/page/-/files/graphics/0320_COVID19_RespiratorReuse.pdf. Additional National Nurses United materials on decontamination are available here: https://www.nationalnursesunited.org/covid-19-ppe-decontamination.

81 Ibid.

82 National Nurses United. "New Survey..." (May 20, 2020).

83 Ibid.

84 Ibid.

85 U.S. Bureau of Labor Statistics. "Average Hourly Wage for Registered Nurses, Nonunion, for All US, 2018." Modeled Wage Estimates. U.S. Department of Labor. Data extracted on May 15, 2020. https://beta.bls.gov/dataViewer/view/timeseries/WMU00000001020000002911412400.

86 Ibid.

87 Coombs C et al. "The Bargaining Power of Health Care Unions and Union Wage Premiums for Registered Nurses." *J Lab Res*. Jun 4, 2015; 36(4): 442–61. doi:10.1007/s12122-015-9214-z.

McGregory R. "An Analysis of Black–White Wage Differences in Nursing: Wage Gap or Wage Premium?" *Rev Black Pol Econ*. Mar 2011; 40(1): 31–37. doi:10.1007/s12114-011-9097-z.

88 McGregory R (Mar 2011).

89 Ibid.

90 Gould E, McNicholas C. "Unions Help Narrow the Gender Wage Gap." *Working Economics Blog*. Economic Policy Institute. Apr 3, 2017. https://www.epi.org/blog/unions-help-narrow-the-gender-wage-gap.

91 Coombs C et al. (Jun 4, 2015).

92 Safe staffing ratios are crucial to saving patient lives. Kane R et al. "The Association of Registered Nurse Staffing Levels and Patient Outcomes: Systematic Review and Meta-Analysis." *Medical Care*. Dec 2007; 45(12): 1195–204. doi:10.1097/mlr.0b013e3181468ca3.

National Nurses United. "RN Staffing Ratios: A Necessary Solution to the Patient Safety Crisis in U.S. Hospitals." National Nurses United. Jun 2019. https://act.nationalnursesunited.org/page/-/files/graphics/0619_Ratios_Booklet_NNU.pdf.

Sakr Y et al. "The Impact of Hospital and ICU Organizational Factors on Outcome in Critically Ill Patients." *Crit Care Med*. Mar 2015; 43(3): 519–26. doi:10.1097/CCM.0000000000000754.

93 National Nurses United. "National Campaign for Safe RN-to-Patient Staffing Ratios." National Nurses United. Aug 23, 2019. https://www.nationalnursesunited.org/ratios.

94 National Nurses United. "House Passes Bipartisan Bill to Prevent Workplace Violence for Health Care and Social Services Workers." National Nurses United. Nov 21, 2019. https://www.nationalnursesunited.org/press/house-passes-bipartisan-bill-prevent-workplace-violence-health-care-and-social-services.

95 See National Nurses United's website for a comprehensive overview of our campaigns. Click on the drop-down menu link "Campaigns." https://www.nationalnursesunited.org.

96 The CDC's "current best estimate" of transmission prior to symptom onset is 50 percent. The CDC's "current best estimate" of asymptomatic cases is 40 percent with 75 percent of asymptomatic cases having the same degree of infectiousness as symptomatic cases. The CDC explains its methodology and provides sources for those who seek additional information. Centers for Disease Control and Prevention. "COVID-19 Pandemic Planning Scenarios." U.S. Department of Health and Human Services. Sep 10, 2020. https://www.cdc.gov/coronavirus/2019-ncov/hcp/planning-scenarios.html.

97 National Nurses United. "Antibody Testing for SARS-CoV-2/COVID-19." National Nurses United. Apr 20, 2020. https://act.nationalnursesunited.org/page/-/files/graphics/0420_Covid19_IssueBrief_AntiBodyTesting1.pdf.

98 Editorial. "COVID-19: protecting health-care workers." *The Lancet*. Mar 21, 2020; 395: 10228, 922. doi:10.1016/S0140-6736(20)30644-9.

99 Kollmeyer B. "Nearly a Third of Spain's 255,000 Nurses May Be Infected with Coronavirus, Study Indicates." *MarketWatch*. Apr 15, 2020. https://www.marketwatch.com/story/nearly-a-third-of-spains-255000-nurses-may-be-infected-with-coronavirus-study-indicates-2020-04-15.

100 Lan F-Y et al. "Work-Related COVID-19 Transmission in Six Asian Countries/Areas: A Follow-Up Study." *PLoS ONE*. May 19, 2020; 15(5): e0233588. doi:10.1371/journal.pone.0233588.

101 Centers for Disease Control and Prevention. "Characteristics of Health Care Personnel with COVID-19—United States, February 12–April 9, 2020." *MMWR Morb Mortal Wkly Rep*. U.S. Department of Health and Human Services. Apr 14, 2020; 69: 477–81. Jun 30, 2020. doi:10.15585/mmwr.mm6915e6.

102 Ibid.

103 Kaiser Family Foundation. "Total Health Care Employment, May 2018." *State Health Facts*. Kaiser Family Foundation. May 2018. https://www.kff.org/other/state-indicator/total-health-care-employment.

104 Barrett E et al. "Prevalence of SARS-CoV-2 Infection in Previously Undiagnosed Health Care Workers at the Onset of the U.S. COVID-19 Epidemic." *medRxiv*. Apr 24, 2020. doi:10.1101/2020.04.20.20072470.

105 Ibid.

106 Ibid.

107 Ibid.

Budorf A et al. "The COVID-19 (Coronavirus) Pandemic: Consequences for Occupational Health." *Scand J Work Environ Health*. 2020; 46(3):229–30. doi:10.5271/sjweh.3893.

108 Liu Y et al. "Viral Dynamics in Mild and Severe Cases of COVID-19." *Lancet Infect Dis*. Mar 19, 2020; 20(6): 656–57. doi:10.1016/S1473-3099(20)30232-2.

Mancuso P et al. "Temporal Profile and Determinants of Viral Shedding and of Viral Clearance Confirmation on Nasopharyngeal Swabs from SARS-CoV-2-Positive Subjects: A Population-Based Study in Reggio Emilia." *SSRN* preprints with *The Lancet*. May 1, 2020. doi:10.2139/ssrn.3594635.

Zeng Q et al. "Clinical Course and Treatment Efficacy of COVID-19 near Hubei Province, China: A Multicentre, Retrospective Study." *Transbound Emerg Dis*. Jun 12, 2020. 00:1–12. doi:10.1111/tbed.13674.

Zheng S et al. "Viral Load Dynamics and Disease Severity in Patients Infected with SARS-CoV-2 in Zhejiang Province, China, January–March 2020: Retrospective Cohort

Study." *BMJ.* Apr 21, 2020; 369:m1443. doi:10.1136/bmj.m1443.

109 Cheney C. "Coronavirus: Urgent Need to Boost Care Capacity and Healthcare Worker Safety." *HealthLeaders*. Mar 26, 2020. https://www.healthleadersmedia.com/clinical-care/coronavirus-urgent-need-boost-care-capacity-and-healthcare-worker-safety.

110 Grimm C. "Hospital Experiences Responding to the COVID-19 Pandemic: Results of a National Pulse Survey March 23–27, 2020." Office of the Inspector General. U.S. Department of Health and Human Services. Apr 3, 2020. https://oig.hhs.gov/oei/reports/oei-06-20-00300.pdf.

111 This data is from an unpublished update as of November 13, 2020, of National Nurses United's September 2020 report on registered nurse deaths and infections from Covid-19, "Sins of Omission..." (Sep 2020).

112 Ibid.

113 Ibid.

114 Ibid.

115 U.S. Bureau of Labor Statistics (Jan 2020).

116 McFarling U. "The Pandemic is Taking an Outsized Toll on Filipino American Nurses." *STAT*. Apr 28, 2020. https://www.statnews.com/2020/04/28/coronavirus-taking-outsized-toll-on-filipino-american-nurses.

117 U.S. Bureau of Labor Statistics (Jan 2020).

118 Nguyen L et al. "Risk of COVID-19 Among Front-Line Health-Care Workers and the General Community." *The Lancet*. Jul 31, 2020. doi:10.1016/S2468-2667(20)30164-X.

119 Ibid.

120 McFarling U (Apr 28, 2020).

121 Wingfield A (May 14, 2020).

122 O'Halloran J. "I'm a Nurse in a COVID-19 Unit. My Hospital's Leaders Frighten Me More Than the Virus." *STAT*. May 6, 2020. https://www.statnews.com/2020/05/06/nurse-frightened-hospital-administrators-more-than-covid-19.

123 Stokes E et al. (Jun 19, 2020).

124 Johns Hopkins University. "Mortality Analyses." Johns Hopkins University. Nov 30, 2020. https://coronavirus.jhu.edu/data/mortality.

125 Barker-Davies R et al. "The Stanford Hall consensus statement for post-COVID-19 rehabilitation." *Br J Sports Med*. May 31, 2020. doi:10.1136/bjsports-2020-102596.

Centers for Disease Control and Prevention. "Interim Clinical Guidance for Management of Patients with Confirmed Coronavirus Disease (COVID-19)." U.S. Department of Health and Human Services. Jun 30, 2020. https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-guidance-management-patients.html.

Puelles V et al. "Multiorgan and Renal Tropism of SARS-CoV-2." *N Engl J Me*d. Aug 6, 2020; 383:590–92. doi:10.1056/NEJMc2011400.

126 Ahmed M et al. "Neurological Manifestations of COVID-19 (SARS-CoV-2): A Review." *Front in Neurol*. May 22, 2020; 11: 518. doi:10.3389/fneur.2020.00518.

Alberti P et al. "Guillain-Barré Syndrome Related to COVID-19 Infection." *Neurol–Neuroimmunol Neuroinflamm*. Jul 2020; 7(4): e741. doi:10.1212/NXI.0000000000000741.

Camdessanche J et al. "COVID-19 May Induce Guillain-Barré Syndrome." *Rev Neurol*. Apr 15, 2020; 176(6):516–18. doi:10.1016/j.neurol.2020.04.003.

Paterson R et al. "The Emerging Spectrum of COVID-19 Neurology: Clinical, Radiological and Laboratory Findings." *Brain*. Jul 8, 2020; Awaa240. doi:10.1093/brain/awaa240.

Singh A et al. "Novel Coronavirus Disease 2019 (COVID-19) and Neurodegenerative Disorders." *Dermatol Ther.* May 15, 2020; e13591. doi:10.1111/dth.13591.

Varatharaj A et al. "Neurological and Neuropsychiatric Complications of COVID-19 in 153 Patients: A UK-Wide Surveillance Study." *The Lancet.* Jun 25, 2020. doi:10.1016/S2215-0366(20)30287-X.

Whittaker A et al. "Neurological Manifestations of COVID-19: A Review." *Acta Neurol Scand.* May 15, 2020; 142. doi:10.1111/ane.13266.

127 Mazza M et al. "Anxiety and Depression in COVID-19 Survivors: Role of Inflammatory and Clinical Predictors." *Brain Behav Immun.* Jul 30, 2020; S0889-1591(20)31606-8. doi:10.1016/j.bbi.2020.07.037.

128 Qadri F, Mariona F. "Pregnancy Affected by SARS-CoV-2 Infection: A Flash Report from Michigan." *J Matern Fetal Neonatal Med*. May 20, 2020. doi:10.1080/14767058.2020.176533.

129 London V et al. (May 19, 2020); Sentilhes L et al. (May 12, 2020).

130 Collin J et al. 2020. "Pregnant and Postpartum Women with SARS-CoV-2 Infection in Intensive Care in Sweden." *Acta Obstet Gynecol Scand.* May 9, 2020; 99: 819–22. doi:10.1111/aogs.13901.

Lokken E. "Clinical Characteristics of 46 Pregnant Women with a SARS-CoV-2 Infection in Washington State." *Am J Obstet Gynecol*. May 18, 2020. doi:10.1016/j.ajog.2020.05.031.

London V et al. "The Relationship between Status at Presentation and Outcomes among Pregnant Women with COVID-19." *Am J Perinatol*. May 19, 2020. doi:10.1055/s-0040-1712164.

Sentilhes L et al. "Clinical Course of 54 Pregnant Women with COVID-19: A Retrospective Review of Medical Records." *SSRN* preprints with *The Lancet*. May 12, 2020. doi:10.2139/ssrn.3582768.

131 Zambrano L et al. Centers for Disease Control and Prevention. "Update: Characteristics of Symptomatic Women of Reproductive Age with Laboratory-Confirmed SARS-CoV-2 Infection by Pregnancy Status — United States, January 22–October 3, 2020." *MMWR Morb Mortal Wkly Rep*. U.S. Department of Health and Human Services. Nov 6, 2020; 69(44):1641–47. doi:10.15585/mmwr.mm6944e3.

132 Dong L et al. "Possible Vertical Transmission of SARS-CoV-2 From an Infected Mother to Her Newborn." *JAMA*. Mar 26, 2020. 323(18): 1846–48. doi:10.1001/jama.2020.4621.

Egloff C et al. "Evidence and Possible Mechanisms of Rare Maternal-Fetal Transmission of SARS-CoV-2." *J Clin Virol*. Jul 2020; 128: 104447. doi:10.1016/j.jcv.2020.104447.

Kimberlin D, Stagno S. "Can SARS-CoV-2 Infection Be Acquired In Utero? More Definitive Evidence Is Needed." *JAMA*. Mar 26, 2020. 323(18): 1788–89. doi:10.1001/jama.2020.4868.

Yang Z, Liu Y. 2020. "Vertical Transmission of Severe Acute Respiratory Syndrome Coronavirus 2: A Systematic Review." *Am J Perinatol*. May 13, 2020. doi:10.1055/s-0040-1712161.

Zeng L et al. "Neonatal Early-Onset Infection With SARS-CoV-2 in 33 Neonates Born to Mothers With COVID-19 in Wuhan, China." *JAMA Pediatr*. Mar 26, 2020. doi:10.1001/jamapediatrics.2020.0878.

133 Egloff C et al. (Jul 2020).

134 Carfi A et al. "Persistent Symptoms in Patients After Acute COVID-19." *JAMA*. Jul 09, 2020. doi:10.1001/jama.2020.12603.

MacMillan C. "What Does Recovery from COVID-19 Look Like?" Jun 19, 2020. *Yale Medicine*. https://www.yalemedicine.org/stories/covid-19-recovery.

Parshley L. "The Emerging Long-Term Complications of COVID-19, Explained." *Vox*. Jun 12, 2020. https://www.vox.com/2020/5/8/21251899/coronavirus-long-term-effects-symptoms.

135 Wu D et al. "COVID-19: Reduced Lung Function and Increased Psycho-emotional Stress." *Bioinformation*. Apr 30, 2020; 16(4): 293–96. doi:10.6026/97320630016293.

Pawlowski A. "What are the Long-Term Health Consequences of COVID-19?" *Today*. Apr 16, 2020. https://www.today.com/health/coronavirus-long-term-health-covid-19-impact-lungs-heart-kidneys-t178770.

136 Shi S et al. "Association of Cardiac Injury with Mortality in Hospitalized Patients with COVID-19 in Wuhan, China." *JAMA Cardiol*. Mar 25, 2020. doi:10.1001/jamacardio.2020.0950.

Huang C et al. "Clinical Features of Patients Infected with 2019 Novel Coronavirus in Wuhan, China." *The Lancet*. Feb 15, 2020; 395(10223):497–506. doi:10.1016/S0140-6736(20)30183-5.

137 Kapfhammer H et al. "Posttraumatic Stress Disorder and Health-Related Quality of Life in Long-Term Survivors of Acute Respiratory Distress Syndrome." *Am J Psychiatry*. Jan 1, 2004; 161(1): 45–52. doi:10.1176/appi.ajp.161.1.45.

138 Pattison N. "End-of-Life Decisions and Care in the Midst of a Global Coronavirus (COVID-19) Pandemic." *Intensive Crit Care Nurs*. Apr 2, 2020; 58: 102862. doi:10.1016/j.iccn.2020.102862.

139 Stam H et al. "Covid-19 and Post Intensive Care Syndrome: A Call for Action." *J Rehabil Med*. Apr 14, 2020. doi:10.2340/16501977-2677.

140 Sperati C. "Coronavirus: Kidney Damage Caused by COVID-19." Johns Hopkins Medicine. May 14, 2020. https://www.hopkinsmedicine.org/health/conditions-and-diseases/coronavirus/coronavirus-kidney-damage-caused-by-covid19.

Parshley L (Jun 12, 2020).

141 Hopkins C et al. "Early Recovery Following New Onset Anosmia During the COVID-19 Pandemic—an Observational Cohort Study." *J Otolaryngol Head Neck Surg*. May 4, 2020; 49: 26. doi:10.1186/s40463-020-00423-8.

Passarelli P et al. "Taste and Smell as Chemosensory Dysfunctions in COVID-19

Infection." *Am J Dent*. May 4, 2020; 33(3): 135–37.

142 Tenforde M et al. "Symptom Duration and Risk Factors for Delayed Return to Usual Health Among Outpatients with COVID-19 in a Multistate Health Care Systems Network—United States, March–June 2020." *MMWR Morb Mortal Wkly Rep*. Jul 31, 2020; 69:993–98. doi:10.15585/mmwr.mm6930e1.

MacMillan C (Jun 19, 2020); Parshley L (Jun 12, 2020).

143 Oxley T et al. "Large-Vessel Stroke as a Presenting Feature of COVID-19 in the Young." *N Engl J Med*. Apr 28, 2020; 382: e60. doi:10.1056/NEJMc2009787.

144 Feldstein L et al. "Multisystem Inflammatory Syndrome in U.S. Children and Adolescents." *N Engl J Med*. Jul 23, 2020; 383(4):334–46. doi:10.1056/NEJMoa2021680.

145 Huang Y et al. "Clinical Features of Middle-Aged Patients Died of 2019 Novel Coronavirus–Infected Pneumonia." *Research Square*. May 28, 2020. doi:10.21203/rs.3.rs-28364/v1.

Wang H et al. "Natural Course, Recovery and Fatality in Severely Ill Patients with SARS-CoV-2 Related Pneumonia: A Single-Centered, Retrospective, Observational Cohort Study." *SSRN* preprints with *The Lancet*. Apr 23, 2020. doi:10.2139/ssrn.3586682.

146 Baig A, Sanders E. "Heralding Healthcare Professionals: Recognition of Neurological Deficits in COVID-19." *ACS Chem Neurosci*. May 29, 2929. 11(12): 1701–03. doi:10.1021/acschemneuro.0c00286.

Manganelli F et al. "Brainstem Involvement and Respiratory Failure in COVID-19." *Neurol Sci*. May 29, 2020. doi:10.1007/s10072-020-04487-2.

147 Chen J et al. "Clinical Course and Risk Factors for Recurrence of Positive SARS-CoV-2 RNA: A Retrospective Cohort Study from Wuhan, China." Jun 2, 2020. *SSRN* preprints with *The Lancet*. doi:10.2139/ssrn.3588539.

148 Centers for Disease Control and Prevention. "Severe Outcomes Among Patients with Coronavirus Disease 2019 (COVID-19)—United States, February 12–March 16, 2020." *MMWR Morb Mortal Wkly Rep*. U.S. Department of Health and Human Services. Mar 27, 2020; 69:343–46. doi:10.15585/mmwr.mm6912e2.

149 National Center for Health Workforce Analysis (2019). Not all registered nurses provide direct care to patients, but the data on registered nurses who provide direct care is not broken down by age.

150 Centers for Disease Control and Prevention. "Severe Outcomes..." (Mar 27, 2020).

151 National Center for Health Workforce Analysis (2019).

152 Centers for Disease Control and Prevention. "Severe Outcomes..." (Mar 27, 2020).

153 Morley G et al. (May 2019). Citing Jameton A (1984).

154 Ibid.

155 Varcoe C et al. (Mar 2012).

156 Ibid.

157 For examples, see Part II, "Effects of the Covid-19 Pandemic on Nurses" and Part III, "Collective Action Necessary to Make Change."

158 Shay J. "Moral Injury." *Psychoanalytic Psychology*. 2014; 31(2):182–91. doi:10.1037/a0036090.

159 Litz B et al. "Moral Injury and Moral Repair in War Veterans: A Preliminary Model and Intervention Strategy." *Clin Psychol Rev*. Dec 2009; 29:695–706. doi:10.1016/j.cpr.2009.07.003.

160 Betrayal figures prominently in issues of moral injury. Other researchers explicitly identifying betrayal as a factor in moral injury include: Norman S, Maguen S. "Moral Injury." National Center for PTSD. May 19, 2020. https://www.ptsd.va.gov/professional/treat/cooccurring/moral_injury_hcw.asp and Mantri (Jul 17, 2020).

161 Litz B et al. (Dec 2009).

162 Witnesses can speak out about what they see as a response to moral injury. Therefore, it is important that workers are protected through whistleblowing and other legal protections. As discussed in Part II, "Caring for Themselves and Their Families," nurses are speaking out about the betrayal of those in power, particularly union nurses. Union nurses have the backing of their organizations, which are generally well-versed in members' legal rights. Although nurses may have some protections for reporting potential employer violations of certain laws, these workplace protections are limited, particularly for private sector workers. However, under Section 7 of the National Labor Relations Act, both union and nonunion workers also have protections for engaging in concerted activity for the purposes of collective bargaining over the

terms and conditions of employment and for other mutual aid or protection.

163 Farnsworth J et al. (2017). "A Functional Approach to Understanding and Treating Military-Related Moral Injury. *J Contextual Behav Sci*. Oct 2017; 6(4):391–97. doi:10.1016/j.jcbs.2017.07.003.

164 Litz B, Kerig P (Jun 2019).

165 Ibid.

166 Ibid.

167 Ibid.

168 Ibid.

169 Shay J (2014).

170 Substance Abuse and Mental Health Services Administration. "Trauma-Informed Care in Behavioral Health Services: Treatment Improvement Protocol (TIP) Series 57; Exhibit 1.3–4, DSM-5 Diagnostic Criteria for PTSD." U.S. Department of Health and Human Services. 2014. https://store.samhsa.gov/sites/default/files/d7/priv/sma14-4816.pdf.

171 Williamson V et al. (Apr 2, 2020). Citing Williamson V et al. "Occupational Moral Injury and Mental Health: Systematic Review and Meta-Analysis." *Br J Psychiatry*. May 22, 2018; 212(6): 339–46.

Litz B, Kerig P (Jun 2019); Shay J (2014).

172 Williamson V et al. (Apr 2, 2020). Citing Williamson V et al. (May 22, 2018).

173 Ibid.

174 Williamson V et al. (Apr 2, 2020). Citing Griffin B et al. (Jun 2019) and Williamson V et al. (Jan 9, 2020).

175 Greenberg N et al. (Mar 26, 2020); Jannsen S (Apr 6, 2020); Mantri (Jul 17, 2020); Stoycheva V (Apr 13, 2020); Williamson V et al. (Apr 2, 2020). Note that several empirical studies discussed below in Part II, "Adverse Mental Health Effects" also document that psychological distress is widespread.

176 Occupational Safety and Health Act of 1970 § 5(a)(1), 29 U.S.C. § 654(a)(1) (2020).

177 The discussion here focuses on federal agencies.

178 Chen W et al. (Jul 2020); Feldman O et al. (Apr 27, 2020).

179 Rosenbaum L. "Harnessing Our Humanity—How Washington's Health Care Workers Have Risen to the Pandemic Challenge." *N Engl J Med*. May 28, 2020; 382: 2069–71. doi:10.1056/NEJMp2007466.

Markwell A et al. "Clinical and Ethical Challenges for Emergency Departments During Communicable Disease Outbreaks: Can Lessons from Ebola Virus Disease Be Applied to the COVID-19 Pandemic?" *Emer Med Austral*. Jun 2020; 32(3): 520–24. doi:10.1111/1742-6723.13514.

180 O'Leary L (Mar 19, 2020).

181 Ibid.

182 The CDC's "current best estimate" of transmission prior to symptom onset is 50 percent. The CDC's "current best estimate" of asymptomatic cases is 40 percent with 75 percent of asymptomatic cases having the same degree of infectiousness as symptomatic cases. The CDC explains its methodology and provides sources for those who seek additional information. Centers for Disease Control and Prevention. "COVID-19 Pandemic Planning..." (Sep 10, 2020).

183 Optimal PPE includes virus-impervious coveralls and powered air-purifying respirators. An N95 respirator is the minimum acceptable level of protection. National Nurses United. "Selection of Protective PPE for Nurses and Other Health Care Workers Caring for Patients with COVID-19." National Nurses United. Feb 16, 2020. https://act.nationalnursesunited.org/page/-/files/graphics/0220_Covid19_NNU_Health%2BSafety_PPE_Report.pdf.

184 For examples, see discussion in Part III, "Collective Action Necessary to Make Change."

185 This is not the only dispute. Some nurses have had to reuse unlaundered gowns while others have had to resort to garbage bags. For example, see:

Coleman J. "Photo Shows NY Hospital Staff Using Trash Bags as Protective Gear." *The Hill*. Mar 26, 2020. https://thehill.com/policy/healthcare/489622-photo-shows-staff-using-trash-bags-as-protective-gear-in-hospital-system.

Golden H. "Health workers risk exposure to dangerous chemicals by reusing protective gear." *The Guardian*. May 17, 2020. https://www.theguardian.com/world/2020/may/17/protective-gear-coronavirus-chemicals.

Sanchez T. "Coronavirus: Nurses are Wearing Trash Bags at One Bay Area Hospital Facing a Protective Equipment Shortage." *San Francisco Chronicle*. Apr 2, 2020. https://www.sfchronicle.com/bayarea/article/

Coronavirus-Nurses-are-wearing-trash-bags-at-one-15172777.php.

186 Jacobs A (Jul 8, 2020); Lacy A (Mar 24, 2020).

187 With many health systems and health care providers postponing most elective surgeries and routine medical procedures, the central focus has been on hospitals' practices around managing patients with confirmed or suspected cases of COVID-19. There are problems outside of hospitals as well. Moreover, as the health care sector is reopening prematurely, these issues will be found increasingly in nonhospital settings.

188 However, at bottom, the issue turns on cost—droplet precautions are less costly than airborne precautions—i.e., surgical masks are cheaper than respirators. Otherwise, why not concede that airborne precautions are necessary and that respirators will be provided when they are available?

189 Bourouiba L (Mar 26, 2020).

190 Ibid.

191 Three studies on COVID-19 airborne transmissibility include: Bourouiba L (Mar 26, 2020); van Doremalen N et al. (Apr 16, 2020); Wolfel R et al. (Apr 1, 2020). For additional studies, see National Nurses United's COVID-19 bibliography at this link: https://www.nationalnursesunited.org/covid-19.

192 Three studies on the need for respirators to protect health care workers from COVID-19 infections include: Chen W et al. (Jul 2020), Feldman O et al. (Apr 27, 2020); Liu M et al. (Jun 10, 2020). For additional studies, see National Nurses United's COVID-19 bibliography at: https://www.nationalnursesunited.org/covid-19.

193 Morawska L, Milton, D (Jul 6, 2020).

194 Ibid.

195 The CDC explicitly calls for "a fit-tested NIOSH-approved N95 or higher level respirator" as part of its airborne precautions. Centers for Disease Control and Prevention. "Transmission-Based Precautions." U.S. Department of Health and Human Services. Jan 7, 2016. https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html.

196 Centers for Disease Control and Prevention. "Interim Infection Prevention and Control Recommendations for Healthcare Personnel During the Coronavirus Disease 2019 (COVID-19) Pandemic." U.S. Department of Health and Human Services. Jul 15, 2020. https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html.

World Health Organization. "Transmission of SARS-CoV-2: Implications for Infection Prevention Precautions." World Health Organization. Jul 9, 2020. https://www.who.int/news-room/commentaries/detail/transmission-of-sars-cov-2-implications-for-infection-prevention-precautions.

197 Centers for Disease Control and Prevention. "Interim Infection..." (Jul 15, 2020).

198 Centers for Disease Control and Prevention. "How COVID-19 Spreads." U.S. Department of Health and Human Services. Sep 18, 2020. Retrieved from Wayback Machine. https://web.archive.org/web/20200919084809/www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html.

199 Centers for Disease Control and Prevention. "How COVID-19 Spreads." U.S. Department of Health and Human Services. Sep 21, 2020. Retrieved from Wayback Machine. https://web.archive.org/web/20200921233739/www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html.

200 Centers for Disease Control and Prevention. "How COVID-19 Spreads." U.S. Department of Health and Human Services. Oct 5, 2020. https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html.

201 Ibid.

202 Centers for Disease Control and Prevention. "Scientific Brief: SARS-CoV-2 and Potential Airborne Transmission." Oct 5, 2020. https://www.cdc.gov/coronavirus/2019-ncov/more/scientific-brief-sars-cov-2.html.

203 Ibid.

204 Ibid.

205 Centers for Disease Control and Prevention. "Interim Infection..." (Jul 15, 2020).

206 For example, the CDC reversed controversial guidance that said that persons in close contact with someone who has tested posted for SARS-CoV-2 may not need to be tested if they do not have symptoms. Mandavilli A. "C.D.C. Reverses Testing Guidelines for People Without Covid-19 Symptoms." *The New York Times*. Sep 18, 2020. https://www.nytimes.com/2020/09/18/health/coronavirus-testing-cdc.html.

207 Office of Senator Elizabeth Warren. "At Warren, Peters, and Murray Request, Independent Watchdog Agrees to Investigate Trump Administration Political Interference at FDA and CDC." Office of

Senator Elizabeth Warren. Oct 19, 2020. https://www.warren.senate.gov/newsroom/press-releases/at-warren-peters-and-murray-request-independent-watchdog-agrees-to-investigate-trump-administration-political-interference-at-fda-and-cdc.

208 The Morawska L, Milton, D (Jul 6, 2020) open letter to the WHO also invokes the precautionary principle but does not make any recommendations for health care settings.

209 O'Halloran J (May 6, 2020).

210 Gallegos A. "Hospitals Muzzle Doctors, Nurses on PPE, COVID-19 Cases." *Medscape*. Mar 25, 2020. https://www.medscape.com/viewarticle/927541.

Scheiber N, Rosenthal B. "Nurses and Doctors Speaking Out on Safety Now Risk Their Job." *The New York Times*. Apr 27, 2020. https://www.nytimes.com/2020/04/09/business/coronavirus-health-workers-speak-out.html.

211 Perkins T. "These Workers Spoke Out. Their Hospitals Fired Them." *Huffington Post*. Apr 27, 2020. https://www.huffpost.com/entry/hospitals-fire-doctors-nurses-covid-19_n_5ea2fcb1c5b6f9639813d50b.

Scheiber N, Rosenthal B (Apr 27, 2020).

212 Lacy A (Mar 24, 2020).

213 Whirman E. "'Taking Masks Off Our Faces': How Arizona Hospitals Are Rationing Protective Gear." *Phoenix New Times*. Mar 20, 2020. https://www.phoenixnewtimes.com/news/arizona-hospitals-rationing-masks-protective-gear-banner-11459400.

214 NNU continues its multipronged campaign to ensure all nurses have optimal PPE. An important element of this campaign is countering the disinformation about the appropriate PPE. To this end, we have developed informational materials, provided classes and webinars, testified before Congress, lobbied legislative staff at the state and federal levels, and launched a massive communications program that includes nurse interviews in all news and social media. Information is available on our website in the following locations: https://www.nationalnursesunited.org/covid-19 and https://www.nationalnursesunited.org/press.

215 Jha A (Apr 29, 2020); Luthra S, Jewett C (Apr 20, 2020); Rollin P (Mar 26, 2020).

216 Gollan J, Shogren E (May 11, 2020).

217 Ibid.

California Hospital Association. "Letter to the California Congressional Delegation." Mar 12, 2020. https://www.calhospital.org/sites/main/files/file-attachments/ca_delegation_-_covid-19_requests_-_final.pdf.

Washington Congressional Delegation. "Letter to CDC Director Redfield." Mar 4, 2020. Link to letter provided in Gollan J, Shogren E (May 11, 2020): https://www.documentcloud.org/documents/6884965-WA-Delegation-Letter-to-Redfield.html.

218 An electronic archive of the February 21, 2020 CDC page can be found at: Centers for Disease Control and Prevention. "Interim Infection Prevention and Control Recommendations for Patients with Confirmed Coronavirus Disease 2019 (COVID-19) or Persons Under Investigation for COVID-19 in Healthcare Settings." U.S. Department of Health and Human Services. Feb 21, 2020. Retrieved from Wayback Machine. https://web.archive.org/web/20200227012516/https://www.cdc.gov/coronavirus/2019-ncov/infection-control/control-recommendations.html.

219 Washington Congressional Delegation (March 4, 2020).

220 An electronic archive of the March 10, 2020, CDC page, which states that "facemasks are an acceptable alternative when the supply chain of respirators cannot meet the demand," can be found at: Centers for Disease Control and Prevention. "Interim Infection Prevention and Control Recommendations for Patients with Confirmed Coronavirus Disease 2019 (COVID-19) or Persons Under Investigation for COVID-19 in Healthcare Settings." U.S. Department of Health and Human Services. Mar 10, 2020. Retrieved from Wayback Machine. https://web.archive.org/web/20200311063403/https://www.cdc.gov/coronavirus/2019-ncov/infection-control/control-recommendations.html.

The March 10, 2020 CDC page at https://www.cdc.gov/coronavirus/2019-ncov/infection-control/control-recommendations.html now redirects to: Centers for Disease Control and Prevention. "Interim Infection Prevention and Control Recommendations for Healthcare Personnel During the Coronavirus Disease 2019 (COVID-19) Pandemic." U.S. Department of Health and Human Services. Jul 15, 2020. https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html.

221 Centers for Disease Control and Prevention. "Interim Infection..." (Mar 10, 2020). This language is also omitted from the July 15, 2020 version: Centers for Disease Control and Prevention. "Interim Infection... Pandemic" (Jul 15, 2020).

222 Centers for Disease Control and Prevention. "Interim Infection..." (Mar 10, 2020); Centers for Disease Control and Prevention. "Interim Infection..." (Jul 15, 2020).

Although both the March 10, 2020 and the July 15, 2020 guidance state that wearing an N95 or more protective respirator is preferred for those caring for a confirmed or suspected COVID-19 patient, if available, both also state that "facemasks are an acceptable alternative." Both the March 10, 2020 and the July 15, 2020 guidance call for an N95 respirator as the minimum protection for aerosol-generating procedures. The July 15, 2020 guidance adds that an N95 respirator is the minimum protection for certain surgical procedures as well.

223 Centers for Disease Control and Prevention. "Interim Infection..." (Mar 10, 2020); Centers for Disease Control and Prevention. "Interim Infection..." (Jul 15, 2020).

224 Centers for Disease Control and Prevention. "Strategies for..." (Mar 17, 2020). Although the CDC continues to refer to homemade masks, it has since deleted references to scarves and bandanas as examples. The current version of this webpage, dated June 28, 2020, is available here: https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/face-masks.html.

225 California Hospital Association. "Letter to the California Congressional Delegation." Mar 12, 2020. https://www.calhospital.org/sites/main/files/file-attachments/ca_delegation_-_covid-19_requests_-_final.pdf.

226 Ibid.

227 Jha A (Apr 29, 2020); Gollan J, Shogren, E (May 11, 2020).

228 Gollan J, Shogren, E (May 11, 2020).

229 Ibid.

230 Three studies on COVID-19 airborne transmissibility include: Bourouiba L (Mar 26, 2020); van Doremalen N et al. (Apr 16, 2020); Wolfel R et al. (Apr 1, 2020). For additional studies, see National Nurses United's COVID-19 bibliography at: https://www.nationalnursesunited.org/covid-19.

231 Morawska L, Milton D (Jul 6, 2020).

232 Ibid.

233 Centers for Disease Control and Prevention. "Interim Infection..." (Mar 10, 2020).

234 Centers for Disease Control and Prevention. "Interim Infection..." (Mar 10, 2020).

235 Centers for Disease Control and Prevention. "How COVID-19 Spreads." U.S. Department of Health and Human Services. Oct 5, 2020. https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html.

236 Centers for Disease Control and Prevention. "Interim Infection..." (Mar 10, 2020); Centers for Disease Control and Prevention. "Interim Infection..." (Jul 15, 2020).

In another example, the CDC website defines close contact as "being within 6 feet" or "direct contact with infectious secretions or excretions" in this passage: "Data are limited for the definition of close contact. For this guidance it is defined as: a) being within 6 feet of a person with confirmed COVID-19 or b) having unprotected direct contact with infectious secretions or excretions of the person with confirmed COVID-19."

Centers for Disease Control and Prevention. "Interim U.S. Guidance for Risk Assessment and Work Restrictions for Healthcare Personnel with Potential Exposure to COVID-19." U.S. Department of Health and Human Services. Jun 18, 2020. https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-risk-assesment-hcp.html.

237 The March 10, 2020 guidance refers only to aerosol-generating procedures. The July 15, 2020 adds certain surgical procedures. Centers for Disease Control and Prevention. "Interim Infection..." (Mar 10, 2020); Centers for Disease Control and Prevention. "Interim Infection..." (Jul 15, 2020).

238 Centers for Disease Control and Prevention. "Interim Infection..." (Mar 10, 2020); Centers for Disease Control and Prevention. "Interim Infection..." (Jul 15, 2020).

239 Williamson V et al. (Apr 2, 2020). Citing Williamson V et al. (May 22, 2018).

240 American Hospital Association (May 14, 2020); Mason D, Friese (Mar 19, 2020). Citing Kopp E (Mar 3, 2020).

241 American Hospital Association (Mar 12, 2020); Kopp E (Mar 3, 2020).

242 For example, H.R. 6800, the HEROES Act, and H.R. 6379, the Take Responsibility for Workers and Families Act, included the enforcement discretion clause. However, this language is unnecessary to protect employers as OSHA has regulatory enforcement discretion

and has not issued citations as a matter of existing policy/practice in such cases.

243 Gollan J, Shogren E (May 11, 2020).

244 Centers for Disease Control and Prevention. "Strategies for..." (Mar 17, 2020). Although the CDC continues to refer to homemade masks, it has since deleted references to scarves and bandanas as examples. The current version of this webpage, dated June 28, 2020, is available here: https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/face-masks.html.

Miller-Still R. "St. Elizabeth Nurses Went Three Weeks Without N-95 Masks." *Courier-Herald*. Apr 22, 2020. https://www.courierherald.com/news/st-elizabeth-nurses-went-three-weeks-without-n-95-masks/.

245 Glenza J. "Survey finds 87% of America's Nurses Forced to Reuse Protective Equipment." *The Guardian*. May 20, 2020. https://www.theguardian.com/world/2020/may/20/survey-finds-87-of-americas-nurses-are-forced-to-reuse-protective-equipment.

Golden H (May 17, 2020).

246 In fact, there has been increased spread of other infections among cohorted COVID-19 patients.

McMullen K et al. "Impact of SARS-CoV-2 on Hospital Acquired Infection Rates in the United States: Predictions and Early Results." *Am J Infect Control*. Jul 2, 2020; S0196-6553(20)30634-9. doi:10.1016/j.ajic.2020.06.209.

247 Williamson V et al. (Apr 2, 2020). Citing Williamson V et al. (May 22, 2018).

248 Sanders T et al. (Mar 19, 2020).

249 Grimm C (Apr 3, 2020).

250 Editorial Board. *The New York Times* (Jun 21, 2020).

251 Occupational Safety and Health Administration. "About OSHA." U.S. Department of Labor. Jun 23, 2020. https://www.osha.gov/aboutosha.

252 Occupational Safety and Health Administration. "Infectious Disease Rulemaking." U.S. Department of Labor. Undated. https://www.osha.gov/dsg/id/.

253 National Nurses United. "Petition..." (Mar 4, 2020); AFL-CIO. "Petition..." Mar 6, 2020.

254 Editorial Board. *The New York Times* (Jun 21, 2020); Whoriskey P et al. (Apr 16, 2020).

255 Jewett C, Luthra S. "OSHA Probing Health Worker Deaths but Urges Inspectors to Spare the Penalties." *Kaiser Health News*. Apr 22, 2020. https://khn.org/news/osha-probing-health-worker-deaths-but-urges-inspectors-to-spare-the-penalties/.

256 State OSHA plans have received 37,237 complaints and referrals.

257 Occupational Safety and Health Administration. "COVID-19 Response...." (Nov 23, 2020).

Occupational Safety and Health Administration. "OSHA Coronavirus-Related Issued Citations as of Thurs, Nov 12, 2020." U.S. Department of Labor. Nov 12, 2020. https://www.osha.gov/enforcement/covid-19-data/inspections-covid-related-citations.

258 Ibid.

259 Hanna J, Kaufman E. "More than 150 employees at 4 Boston Hospitals Have Tested Positive for Coronavirus." CNN. Mar 27, 2020. https://www.cnn.com/2020/03/26/health/boston-coronavirus-hospitals-employees-test-positive/index.html.

260 Erb R. "Beaumont Has 1,500 Workers with Coronavirus Symptoms, Including 500 Nurses." *Detroit Free Press*. Apr 6, 2002. https://www.freep.com/story/news/local/michigan/detroit/2020/04/06/beaumont-workers-coronavirus-symptoms-nurses/2959250001/.

261 Shamus K. "Michigan Doctors Seeing Glimmers of Hope as More Coronavirus Patients Sent Home." *Detroit Free Press*. Apr 10, 2020. https://www.freep.com/story/news/health/2020/04/09/michigan-coronavirus-outbreak-henry-ford-health/5123571002/.

262 Occupational Safety and Health Administration. "U.S. Department of Labor Issues Enforcement Guidance for Recording Cases of COVID-19." U.S. Department of Labor. Apr 10, 2020. https://www.dol.gov/newsroom/releases/osha/osha20200410-2.

263 Le Mignot S. "Suburban Nurse Gets COVID-19, Infects Her Family After Hospital Says Don't Wear Mask." CBS Chicago. Jun 23, 2020. https://chicago.cbslocal.com/2020/06/23/suburban-nurse-gets-covid-19-infects-her-family-after-hospital-says-dont-wear-mask/.

Worcester S. "Higher Death Rate in Cancer Patients with Nosocomial COVID-19." *Medscape*. Jul 31, 2020. https://www.medscape.com/viewarticle/934977.

264 Williamson V et al. (Apr 2, 2020). Citing Griffin B et al. (Jun 2019) and Williamson V et al. (Jan 9, 2020).

265 Other institutions and leaders, not discussed in this subsection, that have played a role in "perpetrating or failing to prevent" morally transgressive acts include Congress, President Trump, the FDA, and state and local public health and safety agencies. They are discussed in Part III.

266 The CDC has no power to enforce its guidelines, thus it is not included here.

267 Cox J (Apr 28, 2020); Cox J et al. (Mar 18, 2020); Forgrave R (Mar 21, 2020); Greenberg N et al. (Mar 26, 2020); Luis C, Vance C (May/Jun 2020); McConnell D (Jun 2020); Sacharczyk T (Mar 25, 2020).

268 Greenberg N et al. (Mar 26, 2020); Jannsen S (Apr 6, 2020); Stoycheva V (Apr 13, 2020).

269 McFarling U (Apr 28, 2020); Sacharczyk T (Mar 25, 2020).

270 Cox J (Apr 28, 2020); Cox J et al. (Mar 18, 2020); "Doctors, Nurses..." (Apr 5, 2020); Forgrave R (Mar 21, 2020); Guarino B (Apr 16, 2020); Halbrook L (Apr 9, 2020); Hardin T (May 21, 2020); Jacobs A (Jul 8, 2020); Lee L (Apr 4, 2020); Luis C, Vance C (May/Jun 2020); McConnell D (Jun 2020); McFarling U (Apr 28, 2020); Sacharczyk T (Mar 25, 2020).

271 Cox J (Apr 28, 2020); Cox J et al. (Mar 18, 2020); Forgrave R (Mar 21, 2020); Hardin T (May 21, 2020).

272 Cox J (Apr 28, 2020).

273 For example, see Hardin T (May 21, 2020) and Kunkle F. "Head of Baltimore ICU dies of coronavirus, surrounded by his staff and husband." *The Washington Post*. Jul 27, 2020. https://www.washingtonpost.com/local/head-of-baltimore-hospitals-icu-dies-of-coronavirus/2020/07/27/3831bfb8-d052-11ea-8d32-1ebf4e9d8e0d_story.html.

274 McFarling U (Apr 28, 2020).

275 Ibid.

276 Centers for Disease Control and Prevention. "Strategies to Mitigate Healthcare Personnel Staffing Shortages." U.S. Department of Health and Human Services. Jul 17, 2020. https://www.cdc.gov/coronavirus/2019-ncov/hcp/mitigating-staff-shortages.html. Hospitals have been given broad discretion to allow workers who have tested positive for COVID-19 to continue working since at least April 6, 2020. See previous versions at the Wayback Machine website. https://web.archive.org/web/*/https://www.cdc.gov/coronavirus/2019-ncov/hcp/mitigating-staff-shortages.html.

277 Guillermo E. "The Fighting Filipino American Nurses of COVID-19." Asian American Legal Defense and Education Fund. Apr 22, 2020. https://www.aaldef.org/blog/emil-guillermo-the-fighting-filipino-american-nurses-of-covid-19/.

278 Ibid.

279 Cox J (Apr 28, 2020); Cox J et al. (Mar 18, 2020); "Doctors, Nurses..." (Apr 5, 2020); Forgrave R (Mar 21, 2020); Guarino B (Apr 16, 2020); Halbrook L (Apr 9, 2020); Hardin T (May 21, 2020); Jacobs A (Jul 8, 2020); Lee L (Apr 4, 2020); Luis C, Vance C (May/Jun 2020); McConnell D (Jun 2020); McFarling U (Apr 28, 2020); Sacharczyk T (Mar 25, 2020).

280 Guarino B (Apr 16, 2020).

281 Ibid.

282 McConnell D (Jun 2020).

283 Ibid.

284 Cox J (Apr 28, 2020); Cox J et al. (Mar 18, 2020); "Doctors, Nurses..." (Apr 5, 2020); Guarino B (Apr 16, 2020); Lee L (Apr 4, 2020); McFarling U (Apr 28, 2020).

285 "Doctors, Nurses..." (Apr 5, 2020); Hardin T (May 21, 2020); McFarling U (Apr 28, 2020).

286 Hardin T (May 21, 2020).

287 Ibid.

Nguyen J. "Nurse Sends Her Kids to Live with Grandparents While She Fights Coronavirus." Channel 933. Mar 17, 2020. https://channel933.iheart.com/content/nurse-sends-her-kids-to-live-with-grandparents-while-she-fights-coronavirus-new-york/.

White D. "Hospital Workers Send Kids Away, Live in Campers to Protect Family During Coronavirus." *The Kansas City Star*. Apr 8, 2020. https://www.kansascity.com/news/coronavirus/article241859741.html.

288 Twohey M. "New Battle for Those on Coronavirus Front Lines: Child Custody." *The New York Times*. Apr 7, 2020. https://www.nytimes.com/2020/04/07/us/coronavirus-child-custody.html.

289 American Public Health Association. "APHA Sounds Alarm over Mental Health in Midst of COVID-19 Pandemic." American Public Health Association. May 11, 2020. https://www.apha.org/news-and-media/news-releases/apha-news-releases/2020/apha-sounds-alarm-on-mental-health.

Panchal N et al. "The Implications of COVID-19 for Mental Health and Substance Abuse." Kaiser Family Foundation. Aug 21, 2020. https://www.kff.org/coronavirus-covid-19/

issue-brief/the-implications-of-covid-19-for-mental-health-and-substance-use/.

American Psychological Association. "Stress in America™ 2020." American Psychological Association. May 2020. https://www.apa.org/news/press/releases/stress/2020/report.

290 Griffin K et al. "Hospital Preparedness for COVID-19: A Practical Guide From a Critical Care Perspective." *Amer J of Resp and Crit Care Med*. Jul 1, 2020; 49(4): 342–43. doi:10.1164/rccm.202004-1037CP.

Greenberg N et al. (Mar 26, 2020); Rosenbaum L (May 28, 2020); Williamson V et al. (Apr 2, 2020).

291 Rosenbaum L (Mar 18, 2020); Ridderbusch K (Apr 22, 2020).

292 Emanuel E et al. "Fair Allocation of Scarce Medical Resources in the Time of Covid-19." *N Engl J Med*. May 28, 2020; 382: 2049–55. doi:10.1056/NEJMsb2005114.

293 The need to fully invoke the Defense Production Act of 1950 to protect both nurses and patients is discussed in Part III, "Pandemic Risk Mitigation Policies: PPE and Other Measures to Reduce Exposure Risks."

294 National Academies of Sciences, Engineering, and Medicine. Rapid Expert Consultation on Crisis Standards of Care for the COVID-19 Pandemic. The National Academies Press. Mar 28, 2020. doi:10.17226/25765.

295 Berlinger N et al. "Ethical Framework for Health Care Institutions and Guidelines for Institutional Ethics Services Responding to the Coronavirus Pandemic." *The Hastings Center*. Mar 16, 2020. https://www.thehastingscenter.org/ethicalframeworkcovid19/.

296 Although this section discusses crisis standards in an acute-care hospital, crisis standards of patient care may also be implemented in outpatient settings and for patient advice lines. For example, in the latter case, nurses staffing advice lines may be required to follow rigid algorithms that include urging patients to stay home rather than seeing a doctor in person or seeking care through a hospital or emergency medical services.

297 Kane R et al. (Dec 2007); National Nurses United. "RN Staffing Ratios..." (Jun 2019); Sakr Y et al. (Mar 2015).

298 Halpern N, Tan K. "United States Resource Availability for COVID-19." *Soc Crit Care Med*. May 12, 2020. https://sccm.org/Blog/March-2020/United-States-Resource-Availability-for-COVID-19.

299 Ibid.

300 Jansson M et al. "The Proportion of Understaffing and Increased Nursing Workload are Associated with Multiple Organ Failure: A Cross-Sectional Study." *J Adv Nurs*. Jun 2, 2020. 76: 2113–24. doi:10.1111/jan.14410.

Kane R et al. (Dec 2007); National Nurses United. "RN Staffing Ratios..." (Jun 2019); Sakr Y et al. (Mar 2015).

301 Lin Z et al. (Apr 11, 2020). Citing Chen R et al. "Effects of a SARS Prevention Programme in Taiwan on Nursing Staff's Anxiety, Depression and Sleep Quality: A Longitudinal Survey." *Int J Nurs Stud*. Feb 2006; 43: 215–25. doi:10.1016/j.ijnurstu.2005.03.006.

O'Halloran J (May 6, 2020).

Zaka A et al. "COVID-19 Pandemic as a Watershed Moment: A Call for Systematic Psychological Health Care for Frontline Medical Staff. *J Health Psycho*l. Jun 2020; 25(7): 883–87. doi:10.1177/1359105320925148.

302 O'Halloran J (May 6, 2020).

303 Ibid.

304 Institute of Medicine. *Crisis Standards of Care: A Toolkit for Indicators and Triggers*. The National Academies Press. 2013. https://www.nap.edu/read/18338.

305 Morley G et al. (May 2019). Citing Jameton A (1984).

306 Pattison N (Apr 2, 2020). Citing Vincent L et al. "Burnout Syndrome in UK Intensive Care Unit Staff: Data from All Three Burnout Syndrome Domains and Across Professional Groups, Genders and Ages." *J. Intensive Care Soc*. Nov 2019; 20(4): 363–69. doi:10.1177/1751143719860391 and Colville G et al. "A Survey of Moral Distress in Staff Working in Intensive Care in the UK." *J. Intensive Care Soc*. Aug 2019; 20(3): 196–203.

307 The problems described in this subsection also apply to the shift to population health under so-called value-based payment schemes that neoliberal health care policy wonks are pushing currently.

308 Emanuel E et al. (May 28, 2020). Citing Hick J et al. "Duty to plan: Health Care, Crisis Standards of Care, and Novel Coronavirus SARS-CoV-2." *NAM Perspectives*. Mar 5, 2020. https://nam.edu/duty-to-plan-health-care-crisis-standards-of-care-and-novel-coronavirus-sars-cov-2/; New South Wales Ministry of Health. "Influenza pandemic—

Providing Critical Care." Australia: Ministry of Health, NSW. May 20, 2010. https://www1.health.nsw.gov.au/pds/ActivePDSDocuments/PD2010_028.pdf; Rosenbaum S et al. "Ethical Considerations for Decision Making Regarding Allocation of Mechanical Ventilators During a Severe Influenza Pandemic or Other Public Health Emergency." U.S. Centers for Disease Control and Prevention. 2011. https://www.cdc.gov/about/advisory/pdf/VentDocument_Release.pdf; Vergano M et al. "Clinical Ethics Recommendations for the Allocation of Intensive Care Treatments, in Exceptional, Resource-Limited Circumstances." Italian Society of Anesthesia, Analgesia, Resuscitation, and Intensive Care. Mar 16, 2020. http://www.siaarti.it/SiteAssets/News/COVID19%20-%20documenti%20SIAARTI/SIAARTI%20-%20Covid-19%20-%20Clinical%20Ethics%20Reccomendations.pdf; and Zucker H et al. "Ventilator Allocation Guidelines." New York State Department of Health Task Force on Life and the Law. Nov 2015. https://www.health.ny.gov/regulations/task_force/reports_publications/docs/ventilator_guidelines.pdf.

309 Berlinger N et al. (Mar 16, 2020).

310 California Department of Public Health. "California SARS-CoV-2 Pandemic Crisis Care Guidelines." Jun 8, 2020. https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/COVID-19/California%20SARS-CoV-2%20Crisis%20Care%20Guidelines%20-June%208%202020.pdf.

311 Ibid.

312 Rosenbaum L (May 28, 2020).

313 Williamson V et al. (Apr 2, 2020). Citing Griffin B et al. (Jun 2019) and Williamson V et al. (Jan 9, 2020).

314 Lai J et al. (Mar 23, 2020); Lin Z et al. (Apr 11, 2020); Liu Z et al. (Mar 18, 2020); Rossi R et al. (May 28, 2020); Zhang W et al. (Apr 9, 2020).

315 Lai J et al. (Mar 23, 2020); Rossi R et al. (May 28, 2020); Zhang W et al. (Apr 9, 2020).

316 Lai J et al. (Mar 23, 2020); Lin Z et al. (Apr 11, 2020); Liu Z et al. (Mar 18, 2020).

317 Lai J et al. (Mar 23, 2020); Lin Z et al. (Apr 11, 2020); Liu Z et al. (Mar 18, 2020); Zhang W et al. (Apr 9, 2020).

318 Lai J et al. (Mar 23, 2020); Zhang W et al. (Apr 9, 2020).

319 Not every study includes all the themes.

320 Lai J et al. (Mar 23, 2020); Lin Z et al. (Apr 11, 2020); Liu Z et al. (Mar 18, 2020).

321 Lin Z et al. (Apr 11, 2020); Liu Z et al. (Mar 18, 2020).

322 Liu Z et al. (Mar 18, 2020).

323 Lai J et al. (Mar 23, 2020); Lin Z et al. (Apr 11, 2020); Rossi R et al. (May 28, 2020).

324 Lin Z et al. (Apr 11, 2020). Citing Chen R et al. (Feb 2006).

325 Chen R et al. (Feb 2006).

326 Lin Z et al. (Apr 11, 2020). Citing Chen R et al. (Feb 2006).

327 Although Williamson et al. tailor the second risk factor to a health care setting, it has been modified to apply more broadly by adding the material in brackets.

328 Lai J et al. (Mar 23, 2020).

329 Lin Z et al. (Apr 11, 2020).

330 Liu Z et al. (Mar 18, 2020).

331 Rossi R et al. (May 28, 2020).

332 Zhang W et al. (Apr 9, 2020).

333 Lin Z et al. (Apr 11, 2020).

334 Lai J et al. (Mar 23, 2020); Lin Z et al. (Apr 11, 2020); Liu Z et al. (Mar 18, 2020).

335 Lai J et al. (Mar 23, 2020); Lin Z et al. (Apr 11, 2020); Liu Z et al. (Mar 18, 2020).

336 Lin Z et al. (Apr 11, 2020). Citing Chen R et al. (Feb 2006).

337 Zhang W et al. (Apr 9, 2020).

338 Ibid. Citing the following sources; footnote references omitted from the quoted material: Guangming Online. "Central Steering Group: Over 3,000 Medical Staff in Hubei Were Infected in the Early Stage of the Epidemic, Currently No Infection Reports Among Medical Aid Staff." Mar 6, 2020. https://politics.gmw.cn/2020-03/06/content_33626862.htm. Chinese; World Health Organization. "Shortage of Personal Protective Equipment Endangering Health Workers Worldwide." World Health Organization. Mar 3, 2020. https://www.who.int/news-room/detail/03-03-2020-shortage-of-personal-protective-equipment-endangering-health-workers-worldwide; *SINAnews*. "In January, Hubei Had More Than 3,000 Medical Infections, and the Wuhan Health and Medical Committee Reported 'None' for Half a Month." Mar 6, 2020. https://news.sina.com.cn/o/2020-03-06/doc-iimxyqvz8395569.shtml. Chinese; and Theorell T. "Evaluating Life Events and Chronic Stressors in Relation to Health: Stressors and

Health in Clinical Work." *Adv Psychosom Med*. 2012. 32: 58–71. doi:10.1159/000330004.

339 Zhang W et al. (Apr 9, 2020).

340 Rossi R et al. (May 28, 2020).

341 Lin Z et al. (Apr 11, 2020); Liu Z et al. (Mar 18, 2020); Zhang W et al. (Apr 9, 2020).

342 Kisely S et al. "Occurrence, prevention, and management of the psychological effects of emerging virus outbreaks on healthcare workers: rapid review and meta-analysis." *BMJ*. May 5, 2020; 369: m1642. doi:10.1136/bmj.m1642.

Maunder R. "Was SARS a Mental Health Catastrophe?" *Gen Hosp Psychiatry*. Jul–Aug 2009; 31(4):316–17. doi:10.1016/j.genhosppsych.2009.04.004.

343 Maunder R (Jul–Aug 2009).

344 Ibid.

345 McAlonan, G et al. "Immediate and Sustained Psychological Impact of an Emerging Infectious Disease Outbreak on Health Care Workers." *Can J Psychiatry*. Apr 1, 2007; 52(4): 241–47. doi:10.1177/070674370705200406.

346 Maunder R et al. "Long-term Psychological and Occupational Effects of Providing Hospital Healthcare During SARS Outbreak." *Emerg Infect Dis*. Dec 2006; 12(12): 1924–32. doi:10.3201/eid1212.060584.

McAlonan, G et al. (Apr 1, 2007).

Wu P et al. "The Psychological Impact of the SARS Epidemic on Hospital Employees in China: Exposure, Risk Perception, and Altruistic Acceptance of Risk." *Can J Psychiatry*. May 2009; 54(5): 302–11. doi:10.1177/070674370905400504.

347 Maunder R et al. (Dec 2006); McAlonan, G et al. (Apr 1, 2007).

348 Maunder R et al. (Dec 2006).

349 However, those in high-risk settings scored slightly higher than those in low-risk settings and experienced more problems with fatigue and sleep, worried more about their health, and had higher fear of social interactions.

350 McAlonan, G et al. (Apr 1, 2007).

351 Ibid.

352 Ibid.

353 Maunder R et al. (Dec 2006).

354 Ibid.

355 Lai J et al. (Mar 23, 2020).

356 Koh D et al. (Jul 2005).

357 Bai Y et al. (Sep 1, 2004); Maunder R et al. (Jun 1, 2004); Maunder R. (Jun 2, 2004).

358 Maunder R et al. (Jun 1, 2004); Maunder R. (Jun 2, 2004).

359 Absent action from Congress and the president, all of these problems will worsen as state revenues plummet and unemployment soars.

360 Grimm C (Apr 3, 2020); National Nurses United. "Unpublished NNU COVID-19…" (Aug 20, 2020).

361 Grimm C (Apr 3, 2020).

362 Shanafelt T et al. (Apr 07, 2020).

363 National Nurses United. "Unpublished NNU COVID-19…" (Aug 20, 2020). For discussion of the broader results of this survey, cited as National Nurses United. "NNU COVID-19…" (Jul 28, 2020), see Part I, "Exposing the System of Corporate Profit Over Care" and Part III, "Other Exposure-Reducing Measures."

364 Ibid.

365 Lai J et al. (Mar 23, 2020); Rossi R et al. (May 28, 2020); Zhang W et al. (Apr 9, 2020).

366 Lai J et al. (Mar 23, 2020); Lin Z et al. (Apr 11, 2020); Liu Z et al. (Mar 18, 2020).

367 Lai J et al. (Mar 23, 2020); Lin Z et al. (Apr 11, 2020); Liu Z et al. (Mar 18, 2020); Zhang W et al. (Apr 9, 2020).

368 Lai J et al. (Mar 23, 2020); Zhang W et al. (Apr 9, 2020).

369 U.S. Bureau of Labor Statistics (Jan 2020).

370 U.S. Bureau of Labor Statistics. "Occupational Employment and Wages—May 2019." U.S. Department of Labor. Mar 31, 2020. https://www.bls.gov/news.release/archives/ocwage_03312020.htm.

371 Barrett E et al. (Apr 24, 2020).

372 Law T. "'We Carry That Burden.' Medical Workers Fighting COVID-19 Are Facing a Mental Health Crisis." *TIME*. Apr 10, 2020. https://time.com/5817435/covid-19-mental-health-coronavirus/.

373 Rosenbaum L (May 28, 2020).

374 Centers for Disease Control and Prevention. "Reducing Stigma." (Jun 11, 2020).

375 There have also been news reports on international stigmatization.

376 Eberhart C. "Nurses' Tires Slashed Outside Hudson Valley Hospital; Peekskill Man Arrested." *Rockland/Westchester Journal News*. Apr 10, 2020. https://www.lohud.com/story/news/crime/2020/04/10/nurses-tires-

slashed-outside-new-york-presbyterian-hudson-valley-hospital/5134415002/.

377 "U.S. Doctors Enduring Verbal Abuse on the Frontlines." Mar 30, 2020. *Reuters*. https://www.reuters.com/video/watch/idRCV0080S0.

378 Washington D. "Nurse Attacked on Her Way to Work, Suspect Believed She Exposed Community to COVID-19." KOKH. Apr 2, 2020. https://okcfox.com/news/coronavirus/nurse-attacked-on-her-way-to-work-suspect-believed-she-was-spreading-covid-19.

379 Davis C. "On Front Lines of COVID-19 Battle, Nurses Also Find Themselves Fighting Stigma." *Hawaii News Now*. May 14, 2020. https://www.hawaiinewsnow.com/2020/05/14/maui-nurses-describe-grueling-battle-outside-hospital/.

380 Shugerman E. "Coronavirus Heroes Are Getting Tossed from Their Homes by Scared Landlords." *The Daily Beast*. Jun. 23, 2020. https://www.thedailybeast.com/coronavirus-nurses-face-eviction-housing-discrimination-from-scared-landlords.

381 Centers for Disease Control and Prevention. "Reducing Stigma." (Jun 11, 2020); Ruiz N et al. (Jul 1, 2020).

382 Ruiz N et al. (Jul 1, 2020).

383 Centers for Disease Control and Prevention. "Reducing Stigma." (Jun 11, 2020).

384 Ibid.

385 For example, he did so in a speech in Phoenix, Arizona on June 23, 2020. Coleman J. "Trump Again Refers to Coronavirus as 'Kung Flu'." *The Hill*. Jun 23, 2020. https://thehill.com/homenews/administration/504224-trump-again-refers-to-coronavirus-as-kung-flu.

386 David E (Apr 15, 2020); Lee J, Yadav M (May 21, 2020).

387 Hawkins D (Jun 15, 2020).

388 Wingfield A (May 14, 2020).

389 Wiley M (Jun 24, 2020).

390 Watkins A et al. (Apr 29, 2020).

391 French L (Apr 27, 2020).

392 Montemurro N. "The Emotional Impact of COVID-19: From Medical Staff to Common People." *Brain Behav Immun*. 2020; S0889-1591(20)30411-6. Jul 2020; 87: 23–24. doi:10.1016/j.bbi.2020.03.032.

Stickings T. "Italian Nurse, 34, Kills Herself After Testing Positive for Coronavirus and Worrying She Had Infected Others." *Daily Mail*. Mar 25, 2020. https://www.dailymail.co.uk/news/article-8150503/Italian-nurse-34-kills-testing-positive-coronavirus.html.

393 Keay L. "Intensive Care Nurse in Her 20s 'Kills herself' at King's College Hospital in London Where Eight Coronavirus Patients Have Died." *Daily Mail*. Mar 25, 2020. https://www.dailymail.co.uk/news/article-8150349/Female-nurse-20s-kills-Kings-College-Hospital-London-amid-coronavirus-crisis.html.

394 Hoffman J. "'I Can't Turn My Brain Off': PTSD and Burnout Threaten Medical Workers. *The New York Times*. May 16, 2020. https://www.nytimes.com/2020/05/16/health/coronavirus-ptsd-medical-workers.html.

395 National Nurses United. "Selection of Protective PPE..." (Feb 16, 2020).

396 Glenza J. "America's PPE Shortage Could Last Years Without Strategic Plan, Experts Warn." *The Guardian*. Aug 10, 2020. https://www.theguardian.com/world/2020/aug/10/us-ppe-coronavirus-shortage-america.

397 Chalikonda S et al. "Implementation of an Elastomeric Mask Program as a Strategy to Eliminate Disposable N95 Mask Use and Resterilization: Results from a Large Academic Medical Center." *J Am Coll Surgeons*. May 11, 2020. doi:10.1016/j.jamcollsurg.2020.05.022.

398 N95 respirators, for example, are designed to be used once and only for a limited number of hours.

399 Coleman J (Mar 26, 2020); Sanchez T (Apr 2, 2020).

400 Roberge R et al. "Analysis of Forces Generated by N95 Filtering Facepiece Respirator Tethering Devices: A Pilot Study." *J Occup Environ Hyg*. 201; 9(8): 517–23.

Bergman M et al. "Impact of Multiple Consecutive Donnings On Filtering Facepiece Respirator Fit." *Am J Infect Control*. 2012; 40(4): 375–80.

401 Kasloff S et al. "Stability of SARS-CoV-2 on Critical Personal Protective Equipment." *medRxiv*. Jun 12, 2020. doi.org/10.1101/2020.06.11.20128884.

Chin A et al. "Stability of SARS-CoV-2 in different environmental conditions." *Lancet Microbe*. Apr 2, 2020. doi:10.1016/S2666-5247(20)30003-3.

402 National Nurses United. "N95 Respirator Decontamination..." (Mar 30, 2020).

403 U.S. Food and Drug Administration. "Battelle Decontamination System—Letter

of Authorization." U.S. Food and Drug Administration. Jun 6, 2020. https://www.fda.gov/media/136529/download.

404 National Nurses United. "Survey of Nation's Frontline Registered Nurses Shows Hospitals Unprepared for COVID-19." National Nurses United. Mar 5, 2020. https://www.nationalnursesunited.org/press/survey-nations-frontline-registered-nurses-shows-hospitals-unprepared-covid-19.

405 National Nurses United. "New Survey..." (May 20, 2020).

406 Ibid.

407 Botts J. "California work safety agency's response to COVID complaints: letters, not inspections." *CalMatters*. Oct. 9, 2020. https://calmatters.org/california-divide/2020/10/cal-osha-response-covid-complaints/.

408 Virginia Safety and Health Codes Board. "Continued Emergency Electronic Meeting on the Draft Emergency Temporary Standard: Infectious Disease Prevention: SARS-CoV-2 That Causes COVID-19 16 VAC 25-220." Virginia Safety and Health Codes Board. Jun 29, 2020. https://www.doli.virginia.gov/wp-content/uploads/2020/06/Board-Amendment-Notes-and-Summary-of-COVID-19-ETS-June-29-2020-SHCB-Continuation-Emergency-Meeting.pdf.

409 See Virginia Interfaith Center for Public Policy. "Strengthen Emergency Temporary Standard." Petition. Virginia Interfaith Center for Public Policy. https://virginiainterfaithcenter.ourpowerbase.net/civicrm/petition/sign?sid=109&reset=1.

410 Hussein F. "State Emergency Workplace Rules Spark a New Epidemic: Litigation." *Bloomberg Law*. Oct. 23, 2020. https://news.bloomberglaw.com/safety/state-emergency-workplace-rules-spark-a-new-epidemic-litigation.

411 Oregon Occupational Safety and Health. "Potential Oregon OSHA Rulemaking Timeline COVID-19/Infectious Diseases." Oregon Occupational Safety and Health. Jun 26, 2020. https://osha.oregon.gov/rules/advisory/infectiousdisease/Documents/Infectious-Disease-Public-Timeline.pdf.

412 See Office of the Governor. "Executive Order No. 2020-145, Safeguards to protect Michigan's workers from COVID-19, Rescission of Executive Order 2020-114." State of Michigan. Jul 9, 2020. https://content.govdelivery.com/attachments/MIEOG/2020/07/09/file_attachments/1492329/EO%202020-145%20Emerg%20order%20-%20Workplace%20safeguards%20-%20re-issue.pdf.

Burns G. "Penalty for violating Gov. Whitmer's coronavirus safety guidelines isn't legal, court rules." *MLive.com*. Jun 8, 2020. https://www.mlive.com/public-interest/2020/06/penalty-for-violating-gov-whitmers-coronavirus-safety-guidelines-isnt-legal-court-rules.html.

413 Michigan Occupational Safety and Health Administration. "Emergency Rules, Coronavirus Disease 2019 (COVID-19)." Michigan Department of Labor and Economic Opportunity. Oct. 14, 2020. https://www.michigan.gov/documents/leo/Final_MIOSHA_Rules_705164_7.pdf.

414 National Nurses United. "Model Standards for COVID-19 Surge: Hospital Preparation, Response, and Safety." National Nurses United. Apr 8, 2020. https://act.nationalnursesunited.org/page/-/files/graphics/0420_Covid19_ModelStandardForSurge_Flyer.pdf.

415 National Nurses United. "New Survey..." (May 20, 2020); National Nurses United. "NNU COVID-19..." (Jul 28, 2020).

416 Pei S et al. "Differential Effects of Intervention Timing on COVID-19 Spread in the United States." *medRxiv*. May 29, 2020. doi:10.1101/2020.05.1520103655.

417 Centers for Disease Control and Prevention. "Strategies to Mitigate..." (Jul 17, 2020).

418 Ibid.

419 Huetteman E. "US Hospitals Pressure Healthcare Staff to Work Even if They Have Covid Symptoms." *Kaiser Health News* and *The Guardian*. Aug 13, 2020. https://www.theguardian.com/us-news/2020/aug/13/us-nurses-doctors-covid-19-symptoms-working.

420 California Department of Public Health. "Coronavirus Disease 2019 (COVID-19) Testing Recommendations for Patients and Health Care Personnel (HCP) at General Acute Care Hospitals (GACHs), All Facilities Letter (AFL) Summary." California Department of Public Health. Nov. 25, 2020. https://www.cdph.ca.gov/Programs/CHCQ/LCP/Pages/AFL-20-88.aspx.

421 U.S. Bureau of Labor Statistics. "National Compensation Survey-Benefits, Leave Benefits: Access, Private Industry Workers, March 2019." U.S. Department of Labor. Sep 2019. https://www.bls.gov/ncs/ebs/benefits/2019/ownership/private/table31a.pdf.

422 Illinois Manufacturers' Association. "IMA Files Litigation to Block Workers' Compensation Rules." Illinois Manufacturers' Association. Apr 22, 2020. https://ima-net.org/ima-files-litigation-to-block-workers-compensation-rules/.

423 U.S. Department of Labor. "Hazard Pay." U.S. Department of Labor. May 15, 2020. https://www.dol.gov/general/topic/wages/hazardpay.

424 Yearby R, Mohapatra S. "Structural Discrimination In COVID-19 Workplace Protections." *Health Affairs*. May 29, 2020. https://www.healthaffairs.org/do/10.1377/hblog20200522.280105/full/.

425 Frazier M. "'If One of Us Gets Sick, We All Get Sick': The Food Workers on the Coronavirus Frontline." *The Guardian*. Apr 17, 2020. https://www.theguardian.com/environment/2020/apr/17/chicken-factory-tyson-arkansas-food-workers-coronavirus.

Kaplan J. "Tyson is Doubling Bonuses and Increasing Health Benefits for Frontline Workers. At Least 8 Have Died of Coronavirus and Over 1,180 Have Been Infected." *Business Insider*. Apr 29, 2020. https://www.businessinsider.com/tyson-doubling-bonuses-increasing-health-benefits-for-workers-2020-4.

Tyson Foods, Inc. "Tyson Foods to Indefinitely Suspend Waterloo Operations." Tyson Foods, Inc. Apr 22, 2020. https://www.tysonfoods.com/news/news-releases/2020/4/tyson-foods-indefinitely-suspend-waterloo-operations.

Anonymous Smithfield Worker. "I work at Smithfield Foods. I'm suing them over putting our lives at risk for your dinner." *The Washington Post*. Apr 24, 2020. https://www.washingtonpost.com/outlook/2020/04/24/smithfield-foods-lawsuit-coronavirus/.

426 5 U.S.C. § 5545(d).

427 5 Code Fed. Reg. Part 550, Subpart I, Appendix A.

428 U.S. Senate Democrats. "The COVID-19 'Heroes Fund.'" Summary. Apr 7, 2020. https://www.democrats.senate.gov/imo/media/doc/Heroes%20Fund%20FINAL%204.7.20.pdf.

429 Witters D. "In U.S., 14% With Likely COVID-19 to Avoid Care Due to Cost." *Gallup*. Apr 28, 2020. https://news.gallup.com/poll/309224/avoid-care-likely-covid-due-cost.aspx.

430 Hamel L et al. "KFF Health Tracking Poll—May 2020." Kaiser Family Foundation. May 27, 2020. https://www.kff.org/report-section/kff-health-tracking-poll-may-2020-health-and-economic-impacts/.

431 See "National Nurses United Response to COVID-19" at https://www.nationalnursesunited.org/covid-19 for more information on our campaign and resources for nurses.

432 National Nurses United. "Petition..." (Mar 4, 2020).

433 National Nurses United. "Letter to Speaker Pelosi." National Nurses United. May 4, 2020. https://act.nationalnursesunited.org/page/-/files/graphics/Letter%20to%20Pelosi_with_Header_Signatures.pdf.

434 Ibid.

435 National Nurses United. "Nurses Demand States Close Again until COVID-19 Protection, Testing, Tracking Measures in Place." Press Release. National Nurses United. Jun 25, 2020. https://www.nationalnursesunited.org/press/nurses-demand-states-close-again-until-covid-19-protection-testing-tracking-measures-place.

BIBLIOGRAPHY

AFL-CIO. "Petition to Secretary Scalia for an OSHA Emergency Temporary Standard for Infectious Disease." AFL-CIO. Mar 6, 2020. https://aflcio.org/statements/petition-secretary-scalia-osha-emergency-temporary-standard-infectious-disease.

Ahmed M et al. "Neurological Manifestations of COVID-19 (SARS-CoV-2): A Review." *Front Neurol*. May 22, 2020; 11: 518. doi:10.3389/fneur.2020.00518.

Alberti P et al. "Guillain-Barré Syndrome Related to COVID-19 Infection." *Neurol Neuroimmunol Neuroinflamm*. Jul 2020; 7(4): e741. doi:10.1212/NXI.0000000000000741.

American Hospital Association. "Contact Your Representative and Ask Them to Urge House Leadership to Withdraw Provision in Coronavirus Funding Package." American Hospital Association. Mar 12, 2020. https://www.aha.org/system/files/media/file/2020/03/contact-your-representative-ask-them-urge-house-leadership-withdraw-provision-coronavirus-funding-package-3-12-2020.pdf.

American Hospital Association. "Letter to Nancy Pelosi." American Hospital Association. May 14, 2020. https://www.aha.org/system/files/media/file/2020/05/web-AHALettertoHouseonHEROESAct051420final.pdf.

American Psychological Association. "Stress in America™ 2020." American Psychological Association. May 2020. https://www.apa.org/news/press/releases/stress/2020/report/.

American Public Health Association. "APHA Sounds Alarm over Mental Health in Midst of COVID-19 Pandemic." American Public Health Association. May 11, 2020. https://www.apha.org/news-and-media/news-releases/apha-news-releases/2020/apha-sounds-alarm-on-mental-health.

Anonymous Smithfield Worker. "I work at Smithfield Foods. I'm suing them over putting our lives at risk for your dinner." *The Washington Post*. Apr 24, 2020. https://www.washingtonpost.com/outlook/2020/04/24/smithfield-foods-lawsuit-coronavirus.

Bai Y et al. "Survey of Stress Reactions Among Health Care Workers Involved with the SARS Outbreak." *Psychiatr Serv*. Sep 1, 2004; 55(9):1055–57. doi:10.1176/appi.ps.55.9.1055.

Baig A, Sanders E. "Heralding Healthcare Professionals: Recognition of Neurological Deficits in COVID-19." *ACS Chem Neurosci*. May 29, 2929. 11(12): 1701–03. doi:10.1021/acschemneuro.0c00286.

Barker-Davies R et al. "The Stanford Hall consensus statement for post-COVID-19 rehabilitation." *Br J Sports Med*. May 31, 2020. doi:10.1136/bjsports-2020-102596.

Barrett E et al. "Prevalence of SARS-CoV-2 Infection in Previously Undiagnosed Health Care Workers at the Onset of the U.S. COVID-19 Epidemic." *medRxiv*. Apr 24, 2020. doi:10.1101/2020.04.20.20072470.

Bergman M et al. "Impact of Multiple Consecutive Donnings on Filtering Facepiece Respirator Fit." *Am J Infect Control*. 2012; 40(4): 375–80.

Berlinger N et al. "Ethical Framework for Health Care Institutions and Guidelines for Institutional Ethics Services Responding to the Coronavirus Pandemic." *The Hastings Center*. Mar 16, 2020. https://www.thehastingscenter.org/ethicalframeworkcovid19.

Boniol M et al. "Gender Equity in the Health Workforce: Analysis of 104 Countries." Health Workforce Working Paper 1. World Health Organization. Mar 2019. https://www.who.int/hrh/resources/gender_equity-health_workforce_analysis/en.

Botts J. "California work safety agency's response to COVID complaints: letters, not inspections." CalMatters Oct. 9, 2020.

Bourouiba L. "Turbulent Gas Clouds and Respiratory Pathogen Emissions: Potential Implications for Reducing Transmission of COVID-19." *JAMA*. Mar 26, 2020; 323(18): 1837–38. doi:10.1001/jama.2020.4756.

Budorf A et al. "The COVID-19 (Coronavirus) Pandemic: Consequences for Occupational Health." *Scand J Work Environ Health*. 2020; 46(3):229–30. doi:10.5271/sjweh.3893.

Burns G. "Penalty for violating Gov. Whitmer's coronavirus safety guidelines isn't legal, court rules." *MLive.com*. Jun 8, 2020. https://www.mlive.com/public-interest/2020/06/penalty-for-violating-gov-whitmers-coronavirus-safety-guidelines-isnt-legal-court-rules.html.

California Department of Public Health. "California SARS-CoV-2 Pandemic Crisis Care Guidelines." California Department of Public Health. Jun 8, 2020. https://www.cdph.ca.gov/Programs/CID/

DCDC/CDPH%20Document%20Library/COVID-19/California%20SARS-CoV-2%20Crisis%20Care%20Guidelines%20-June%208%202020.pdf.

California Hospital Association. "Letter to the California Congressional Delegation." California Hospital Association. Mar 12, 2020. https://www.calhospital.org/sites/main/files/file-attachments/ca_delegation_-_covid-19_requests_-_final.pdf.

Camdessanche J et al. "COVID-19 May Induce Guillain-Barré Syndrome." *Rev Neurol.* Apr 15, 2020; 176(6):516–18. doi:10.1016/j.neurol.2020.04.003.

Carfì A et al. "Persistent Symptoms in Patients After Acute COVID-19." *JAMA*. Jul 09, 2020. doi:10.1001/jama.2020.12603.

Centers for Disease Control and Prevention. "Characteristics of Health Care Personnel with COVID-19 — United States, February 12–April 9, 2020." *MMWR Morb Mortal Wkly Rep*. U.S. Department of Health and Human Services. Apr 14, 2020; 69: 477–81. doi:10.15585/mmwr.mm6915e6.

Centers for Disease Control and Prevention. "COVID-19 Pandemic Planning Scenarios." U.S. Department of Health and Human Services. Sep 10, 2020. https://www.cdc.gov/coronavirus/2019-ncov/hcp/planning-scenarios.html.

Centers for Disease Control and Prevention. "How COVID-19 Spreads." U.S. Department of Health and Human Services. Sep 18, 2020. Retrieved from Wayback Machine. https://web.archive.org/web/20200919084809/www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html.

Centers for Disease Control and Prevention. "How COVID-19 Spreads." U.S. Department of Health and Human Services. Sep 21, 2020. Retrieved from Wayback Machine. https://web.archive.org/web/20200921233739/www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html.

Centers for Disease Control and Prevention. "How COVID-19 Spreads." U.S. Department of Health and Human Services. Oct 5, 2020. https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html.

Centers for Disease Control and Prevention. "Interim Clinical Guidance for Management of Patients with Confirmed Coronavirus Disease (COVID-19)." U.S. Department of Health and Human Services. Jun 30, 2020. https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-guidance-management-patients.html.

Centers for Disease Control and Prevention. "Interim Infection Prevention and Control Recommendations for Patients with Confirmed Coronavirus Disease 2019 (COVID-19) or Persons Under Investigation for COVID-19 in Healthcare Settings." U.S. Department of Health and Human Services. Feb 21, 2020. Retrieved from Wayback Machine. https://web.archive.org/web/20200227012516/https://www.cdc.gov/coronavirus/2019-ncov/infection-control/control-recommendations.html.

Centers for Disease Control and Prevention. "Interim Infection Prevention and Control Recommendations for Patients with Confirmed Coronavirus Disease 2019 (COVID-19) or Persons Under Investigation for COVID-19 in Healthcare Settings." U.S. Department of Health and Human Services. Mar 10, 2020. Retrieved from Wayback Machine. https://web.archive.org/web/20200311063403/https://www.cdc.gov/coronavirus/2019-ncov/infection-control/control-recommendations.html.

Centers for Disease Control and Prevention. "Interim Infection Prevention and Infection Control Recommendations for Healthcare Personnel During the Coronavirus Disease 2019 (COVID-19) Pandemic." U.S. Department of Health and Human Services. Jul 15, 2020. https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html.

Centers for Disease Control and Prevention. "Interim U.S. Guidance for Risk Assessment and Work Restrictions for Healthcare Personnel with Potential Exposure to COVID-19." U.S. Department of Health and Human Services. Jun 18, 2020. https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-risk-assesment-hcp.html.

Centers for Disease Control and Prevention. "Reducing Stigma." U.S. Department of Health and Human Services. Jun 11, 2020. https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/reducing-stigma.html.

Centers for Disease Control and Prevention. "Scientific Brief: SARS-CoV-2 and Potential Airborne Transmission." Oct 5, 2020. https://www.cdc.gov/coronavirus/2019-ncov/more/scientific-brief-sars-cov-2.html.

Centers for Disease Control and Prevention. "Severe Outcomes Among Patients with Coronavirus Disease 2019 (COVID-19)—United States, February 12–March 16, 2020." *MMWR Morb Mortal Wkly* Rep. U.S. Department of Health and Human Services. Mar 27, 2020; 69:343–46. doi:10.15585/mmwr.mm6912e2.

Centers for Disease Control and Prevention. "Strategies for Optimizing the Supply of Facemasks." U.S. Department of Health and Human Services. Mar 17, 2020. https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/face-masks.html.

Centers for Disease Control and Prevention. "Strategies to Mitigate Healthcare Personnel Staffing Shortages." U.S. Department of Health and Human Services. Jul 17, 2020. https://www.cdc.gov/coronavirus/2019-ncov/hcp/mitigating-staff-shortages.html.

Centers for Disease Control and Prevention. "Transmission-Based Precautions." U.S. Department of Health and Human Services. Jan 7, 2016. https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html.

Chalikonda S et al. "Implementation of an Elastomeric Mask Program as a Strategy to Eliminate Disposable N95 Mask Use and Resterilization: Results from a Large Academic Medical Center." *J Am Coll Surgeons*. May 11, 2020. doi:10.1016/j.jamcollsurg.2020.05.022.

Chen J et al. "Clinical Course and Risk Factors for Recurrence of Positive SARS-CoV-2 RNA: A Retrospective Cohort Study from Wuhan, China." Jun 2, 2020. *SSRN* preprints with *The Lancet*. doi:10.2139/ssrn.3588539.

Chen R et al. "Effects of a SARS Prevention Programme in Taiwan on Nursing Staff's Anxiety, Depression and Sleep Quality: A Longitudinal Survey." *Int J Nurs Stud*. Feb 2006; 43: 215–25. doi:10.1016/j.ijnurstu.2005.03.006.

Chen W et al. "To Protect Healthcare Workers Better, To Save More Lives." *Anesth Analg*. Jul 2020; 131(1): 97–101. doi:10.1213/ANE.0000000000004834.

Cheney C. "Coronavirus: Urgent Need to Boost Care Capacity and Healthcare Worker Safety." *HealthLeaders*. Mar 26, 2020. https://www.healthleadersmedia.com/clinical-care/coronavirus-urgent-need-boost-care-capacity-and-healthcare-worker-safety.

Chin A et al. "Stability of SARS-CoV-2 in different environmental conditions." *Lancet Microbe*. Apr 2, 2020. doi:10.1016/S2666-5247(20)30003-3.

Coleman J. "Photo Shows NY Hospital Staff Using Trash Bags as Protective Gear." *The Hill*. Mar 26, 2020. https://thehill.com/policy/healthcare/489622-photo-shows-staff-using-trash-bags-as-protective-gear-in-hospital-system.

Coleman J. "Trump Again Refers to Coronavirus as 'Kung Flu'." *The Hill*. Jun 23, 2020. https://thehill.com/homenews/administration/504224-trump-again-refers-to-coronavirus-as-kung-flu.

Collin J et al. 2020. "Pregnant and Postpartum Women with SARS-CoV-2 Infection in Intensive Care in Sweden." *Acta Obstet Gynecol Scand*. May 9, 2020; 99: 819–22. doi:10.1111/aogs.13901.

Coombs CK et al. "The Bargaining Power of Health Care Unions and Union Wage Premiums for Registered Nurses." *J Lab Res*. Jun 4, 2015; 36(4): 442–61. doi:10.1007/s12122-015-9214-z.

Cox J. "What Happens if You and Daddy Die?" *The Washington Post*. Apr 28, 2020. https://www.washingtonpost.com/graphics/2020/local/children-doctors-nurses-coronavirus-death/.

Cox J et al. "'Dad, Are You Okay?': Doctors and Nurses Fighting Pandemic Fear Infecting Their Families?" *The Washington Post*. Mar 18, 2020. https://www.washingtonpost.com/local/dad-are-you-okay-doctors-and-nurses-fighting-pandemic-fear-infecting-their-families/2020/03/18/8beefc66-689b-11ea-b313-df458622c2cc_story.html.

David, E. "Five Ways COVID-19 Might Be Affecting Filipino Americans." *Psychology Today*. Apr 15, 2020. https://www.psychologytoday.com/us/blog/unseen-and-unheard/202004/5-ways-covid-19-might-be-affecting-filipino-americans.

Davis C. "On Front Lines of COVID-19 Battle, Nurses Also Find Themselves Fighting Stigma." *Hawaii News Now*. May 14, 2020. https://www.hawaiinewsnow.com/2020/05/14/maui-nurses-describe-grueling-battle-outside-hospital.

Dong L et al. "Possible Vertical Transmission of SARS-CoV-2 From an Infected Mother to Her Newborn." *JAMA*. Mar 26, 2020. 323(18): 1846–48. doi:10.1001/jama.2020.4621.

Eberhart C. "Nurses' Tires Slashed Outside Hudson Valley Hospital; Peekskill Man Arrested." *Rockland/Westchester Journal News*. Apr 10, 2020. https://www.lohud.com/story/news/crime/2020/04/10/nurses-tires-slashed-outside-new-york-presbyterian-hudson-valley-hospital/5134415002/.

Editorial Board. "Why is OSHA AWOL?" *The New York Times*. Jun 21, 2020. https://www.nytimes.com/2020/06/21/opinion/coronavirus-osha-work-safety.html.

Egloff C et al. "Evidence and Possible Mechanisms of Rare Maternal-Fetal Transmission of SARS-CoV-2." *J Clin Virol*. Jul 2020; 128:104447. doi:10.1016/j.jcv.2020.104447.

Emanuel E et al. "Fair Allocation of Scarce Medical Resources in the Time of Covid-19." *N Engl J Med*. May 28, 2020; 382: 2049–55. doi:10.1056/NEJMsb2005114.

Erb R. "Beaumont Has 1,500 Workers with Coronavirus Symptoms, Including 500 Nurses." *Detroit Free Press*. Apr 6, 2002. https://www.freep.com/story/news/local/michigan/detroit/2020/04/06/beaumont-workers-coronavirus-symptoms-nurses/2959250001/.

Farnsworth J et al. (2017). "A Functional Approach to Understanding and Treating Military-Related Moral Injury. *J Contextual Behav Sci*. Oct 2017; 6(4):391–97. doi:10.1016/j.jcbs.2017.07.003.

Federici S. *Caliban and the Witch: Women the Body and Primitive Accumulation*. Autonomedia. 2004.

Feldman O et al. "Exposure to a Surrogate Measure of Contamination from Simulated Patients by Emergency Department Personnel Wearing Personal Protective Equipment." *JAMA*. Apr 27, 2020; 323(20): 2091–93. doi:10.1001/jama.2020.6633.

Feldstein L et al. "Multisystem Inflammatory Syndrome in U.S. Children and Adolescents." *N Engl J Med*. Jul 23, 2020; 383(4):334–46. doi:10.1056/NEJMoa2021680.

Forgrave R. "Mask Shortage Hits Home for Minnesota Nurse." *StarTribune*. Mar 21, 2020. https://www.startribune.com/mask-shortage-hits-home-one-nurse-s-story-of-looking-for-protective-masks/568983442.

Forliti, Amy. "Doctors, Nurses Leave Homes to Protect Families from Virus." *Associated Press*. Apr 5, 2020. https://apnews.com/8697a4883bf8799aa235c393ed505bfe.

Frazier M. "'If One of Us Gets Sick, We All Get Sick': The Food Workers on the Coronavirus Frontline." *The Guardian*. Apr 17, 2020. https://www.theguardian.com/environment/2020/apr/17/chicken-factory-tyson-arkansas-food-workers-coronavirus.

French L. "Recently Graduated FDNY EMT Dies by Suicide." *EMS1.com*. Apr 27, 2020. https://www.ems1.com/fdny-ems/articles/recently-graduated-fdny-emt-dies-by-suicide-jv07dFa0VFWklajF/.

Gallegos A. "Hospitals Muzzle Doctors, Nurses on PPE, COVID-19 Cases." *Medscape*. Mar 25, 2020. https://www.medscape.com/viewarticle/927541.

Glenza J. "America's PPE Shortage Could Last Years Without Strategic Plan, Experts Warn." *The Guardian*. Aug 10, 2020. https://www.theguardian.com/world/2020/aug/10/us-ppe-coronavirus-shortage-america?.

Glenza J. "Survey finds 87 percent of America's Nurses Forced to Reuse Protective Equipment." *The Guardian*. May 20, 2020. https://www.theguardian.com/world/2020/may/20/survey-finds-87-of-americas-nurses-are-forced-to-re-use-protective-equipment.

Golden H. "Health workers risk exposure to dangerous chemicals by reusing protective gear." *The Guardian*. May 17, 2020. https://www.theguardian.com/world/2020/may/17/protective-gear-coronavirus-chemicals.

Goldin C et al. "The Expanding Gender Earnings Gap: Evidence from the LEHD-2000 Census." *Amer. Econ. Rev.:* Papers & Proceedings. May 2017; 107(5): 110–14. doi:10.1257/aer.p20171065.

Gollan J, Shogren E. "31,000 and Counting." The Center for Investigative Reporting. May 11,2020. https://www.revealnews.org/article/31000-and-counting.

Gould E, McNicholas C. "Unions Help Narrow the Gender Wage Gap." *Working Economics Blog*. Economic Policy Institute. Apr 3, 2017. https://www.epi.org/blog/unions-help-narrow-the-gender-wage-gap.

Greenberg N et al. "Managing Mental Health Challenges Faced by Healthcare Workers During COVID-19 Pandemic." *BMJ*. Mar 26, 2020; 368:m1211. doi:10.1136/bmj.m1211.

Griffin K et al. "Hospital Preparedness for COVID-19: A Practical Guide from a Critical Care Perspective." *Amer J of Resp and Crit Care Med*. Jul 1, 2020; 49(4): 342–43. doi:10.1164/rccm.202004-1037CP.

Grimm C. "Hospital Experiences Responding to the COVID-19 Pandemic: Results of a National Pulse Survey March 23–27, 2020." Office of the Inspector General. U.S. Department of Health and Human Services. Apr 3, 2020. https://oig.hhs.gov/oei/reports/oei-06-20-00300.pdf.

Guarino, B. "Nurses, Doctors Take Extreme Precautions to Avoid Infecting Family Members." *The Washington Post*. Apr 16, 2020. https://www.washingtonpost.com/health/2020/04/16/

nurses-doctors-are-taking-extreme-precautions-avoid-bringing-coronavirus-home.

Guillermo E. "The Fighting Filipino American Nurses of COVID-19." Asian American Legal Defense and Education Fund. Apr 22, 2020. https://www.aaldef.org/blog/emil-guillermo-the-fighting-filipino-american-nurses-of-covid-19.

Halbrook L. "As a Nurse, I Took an Oath to Take Care of People. But My Children and Husband Didn't Sign Up to Get Sick." *TIME*. Apr 9, 2020. https://time.com/collection/coronavirus-heroes/5816899/nurse-family-coronavirus.

Halpern N, Tan, KS. "United States Resource Availability for COVID-19." *Soc Crit Care Med*. May 12, 2020. https://sccm.org/Blog/March-2020/United-States-Resource-Availability-for-COVID-19.

Hamel L et al. "KFF Health Tracking Poll—May 2020." Kaiser Family Foundation. May 27, 2020. https://www.kff.org/report-section/kff-health-tracking-poll-may-2020-health-and-economic-impacts.

Hanna J, Kaufman E. "More Than 150 Employees at 4 Boston Hospitals Have Tested Positive for Coronavirus." CNN. Mar 27, 2020. https://www.cnn.com/2020/03/26/health/boston-coronavirus-hospitals-employees-test-positive/index.html.

Hardin T. "Written Testimony." Briefing, Heroes of the Coronavirus Crisis: Protecting Front-line and Essential Workers During the Pandemic, before Select Subcommittee on the Coronavirus Crisis of the House Oversight Committee. May 21, 2020. https://coronavirus.house.gov/sites/democrats.coronavirus.house.gov/files/Talisa%20Hardin%20Statement.pdf.

Hawkins D. "Differential Occupational Risk for COVID-19 and Other Infection Exposure According to Race and Ethnicity." *Am J Ind Med*. Jun 15, 2020. 1–4. doi:10.1002/ajim.23145.

Henderson J et al. "A Profile of Frontline Workers in the Bay Area." *Bay Area Equity Atlas*. May 13, 2020. https://bayareaequityatlas.org/essential-workers.

Hoffman J. "'I Can't Turn My Brain Off': PTSD and Burnout Threaten Medical Workers." *The New York Times*. May 16, 2020. https://www.nytimes.com/2020/05/16/health/coronavirus-ptsd-medical-workers.html.

Hopkins C et al. "Early Recovery Following New Onset Anosmia During the COVID-19 Pandemic—an Observational Cohort Study." *J Otolaryngol Head Neck Surg*. May 4, 2020; 49: 26. doi:10.1186/s40463-020-00423-8.

Huang C et al. "Clinical Features of Patients Infected with 2019 Novel Coronavirus in Wuhan, China." *The Lancet*. Feb 15, 2020; 395(10223):497–506. doi:10.1016/S0140-6736(20)30183-5.

Huang Y et al. "Clinical Features of Middle-Aged Patients Died of 2019 Novel Coronavirus–Infected Pneumonia." *Research Square*. May 28, 2020. doi:10.21203/rs.3.rs-28364/v1.

Huetteman E. "US Hospitals Pressure Healthcare Staff to Work Even if They Have Covid Symptoms." *Kaiser Health News* and *The Guardian*. Aug 13, 2020. https://www.theguardian.com/us-news/2020/aug/13/us-nurses-doctors-covid-19-symptoms-working.

Illinois Manufacturers' Association. "IMA Files Litigation to Block Workers' Compensation Rules." Illinois Manufacturers' Association. Apr 22, 2020. https://ima-net.org/ima-files-litigation-to-block-workers-compensation-rules.

Institute of Medicine. Crisis Standards of Care: A Toolkit for Indicators and Triggers. *The National Academies Press*. 2013. https://www.nap.edu/read/18338.

International Labour Organization. "Care Work and Care Jobs for the Future of Decent Work." International Labour Office. 2018. https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_633135.pdf.

Jacobs A. "Grave Shortages of Protective Gear Flare Again as Covid Cases Surge." *The New York Times*. Jul 8, 2020. https://www.nytimes.com/2020/07/08/health/coronavirus-masks-ppe-doc.html.

Jannsen S. "Moral Injury in Health Care and COVID-19." *Social Work Today*. Apr 6, 2020. https://www.socialworktoday.com/archive/exc_040620.shtml.

Jansson M et al. "The Proportion of Understaffing and Increased Nursing Workload are Associated with Multiple Organ Failure: A Cross-Sectional Study." *J Adv Nurs*. Jun 2, 2020. 76: 2113–24. doi:10.1111/jan.14410.

Jewett C, Luthra S. "OSHA Probing Health Worker Deaths but Urges Inspectors to Spare the Penalties." *Kaiser Health News*. Apr 22, 2020. https://khn.org/news/osha-probing-health-worker-deaths-but-urges-inspectors-to-spare-the-penalties.

Jha A. "We Need the Real CDC Back, and We Need It Now." *STAT*. Apr 29, 2020. https://www.statnews.com/2020/04/29/we-need-the-real-cdc-back-and-we-need-it-now.

Johns Hopkins University. "Mortality Analyses." Johns Hopkins University. Aug 25, 2020. https://coronavirus.jhu.edu/data/mortality.

Kaiser Family Foundation. "Total Health Care Employment, May 2018." *State Health Facts*. Kaiser Family Foundation. May 2018. https://www.kff.org/other/state-indicator/total-health-care-employment.

Kane R et al. "The Association of Registered Nurse Staffing Levels and Patient Outcomes: Systematic Review and Meta-Analysis." *Medical Care*. Dec 2007; 45(12): 1195–204. doi:10.1097/mlr.0b013e3181468ca3.

Kapfhammer H et al. "Posttraumatic Stress Disorder and Health-Related Quality of Life in Long-Term Survivors of Acute Respiratory Distress Syndrome." *Am J Psychiatry*. Jan 1, 2004; 161(1): 45–52. doi:10.1176/appi.ajp.161.1.45.

Kaplan J. "Tyson is Doubling Bonuses and Increasing Health Benefits for Frontline Workers. At Least 8 Have Died of Coronavirus and Over 1,180 Have Been Infected." *Business Insider*. Apr 29, 2020. https://www.businessinsider.com/tyson-doubling-bonuses-increasing-health-benefits-for-workers-2020-4.

Kasloff S et al. "Stability of SARS-CoV-2 on Critical Personal Protective Equipment." *medRxiv*. Jun 12, 2020. doi:10.1101/2020.06.11.20128884.

Keay L. "Intensive Care Nurse in Her 20s 'Kills herself' at King's College Hospital in London Where Eight Coronavirus Patients Have Died." *Daily Mail*. Mar 25, 2020. https://www.dailymail.co.uk/news/article-8150349/Female-nurse-20s-kills-Kings-College-Hospital-London-amid-coronavirus-crisis.html.

Kimberlin DW, Stagno S. "Can SARS-CoV-2 Infection Be Acquired In Utero? More Definitive Evidence Is Needed." *JAMA*. Mar 26, 2020. 323(18): 1788–89. doi:10.1001/jama.2020.4868.

Kisely S et al. "Occurrence, Prevention, and Management of the Psychological Effects of Emerging Virus Outbreaks on Healthcare Workers: Rapid Review and Meta-Analysis." *BMJ*. May 5, 2020; 369: m1642. doi:10.1136/bmj.m1642.

Koh D et al. "Risk Perception and Impact of Severe Acute Respiratory Syndrome (SARS) on Work and Personal Lives of Healthcare Workers in Singapore: What Can We Learn?" *Med Care*. Jul 2005; 43: 676– 82. doi:10.1097/01.mlr.0000167181.36730.cc.

Kollmeyer B. "Nearly a Third of Spain's 255,000 Nurses May Be Infected with Coronavirus, Study Indicates." *MarketWatch*. Apr 15, 2020. https://www.marketwatch.com/story/nearly-a-third-of-spains-255000-nurses-may-be-infected-with-coronavirus-study-indicates-2020-04-15.

Kopp E. "Hospitals Want to Kill a Policy Shielding Nurses from COVID-19 Because There Aren't Enough Masks." *Roll Call*. Mar 3, 2020. https://www.rollcall.com/2020/03/13/hospitals-want-to-kill-a-policy-shielding-nurses-from-covid-19-because-there-arent-enough-masks.

Kunkle F. "Head of Baltimore ICU dies of coronavirus, surrounded by his staff and husband." *The Washington Post*. Jul 27, 2020. https://www.washingtonpost.com/local/head-of-baltimore-hospitals-icu-dies-of-coronavirus/2020/07/27/3831bfb8-d052-11ea-8d32-1ebf4e9d8e0d_story.html.

Lacy A. "Kaiser Permanente Threatened to Fire Nurses Treating COVID-19 Patients for Wearing Their Own Masks, Union Says." *The Intercept*. Mar 24, 2020. https://theintercept.com/2020/03/24/kaiser-permanente-nurses-coronavirus/.

Lai J et al. "Factors Associated with Mental Health Outcomes Among Health Care Workers Exposed to Coronavirus Disease 2019." *JAMA Netw Open*. Mar 23, 2020; 3(3): e203976. doi:10.1001/jamanetworkopen.2020.3976

Lan F-Y et al. "Work-Related COVID-19 Transmission in Six Asian Countries/Areas: A Follow-Up Study." *PLoS ONE*. May 19, 2020; 15(5): e0233588. doi:10.1371/journal.pone.0233588.

Law T. "'We Carry That Burden.' Medical Workers Fighting COVID-19 Are Facing a Mental Health Crisis." *TIME*. Apr 10, 2020. https://time.com/5817435/covid-19-mental-health-coronavirus.

Le Mignot S. "Suburban Nurse Gets COVID-19, Infects Her Family After Hospital Says Don't Wear Mask." CBS Chicago. Jun 23, 2020. https://chicago.cbslocal.com/2020/06/23/suburban-nurse-gets-covid-19-infects-her-family-after-hospital-says-dont-wear-mask.

Lee J, Yadav M. "The Rise of Anti-Asian Hate in the Wake of Covid-19." *Items, Insights from the Social Sciences*. Social Science Research Council.

May 21, 2020. https://items.ssrc.org/covid-19-and-the-social-sciences/the-rise-of-anti-asian-hate-in-the-wake-of-covid-19.

Lee L. "Sleeping in the Attic: How a Nurse is Shielding Her Family from Coronavirus." *Business Insider*. Apr 4, 2020. https://www.businessinsider.com/nyc-nurse-shielding-family-coronavirus-exposure-2020-4.

Lin Z et al. "Psychological Burden in Health Care Professionals in Chinese Cities During the Coronavirus Disease 2019 (COVID-19) Outbreak." *SSRN* preprints with *The Lancet*. Apr 11, 2020. doi:10.2139/ssrn.3576782.

Litz B, Kerig P. "Introduction to the Special Issue on Moral Injury: Conceptual Challenges, Methodological Issues, and Clinical Applications." *J Traumatic Stress*. Jun 2019; 32(3):341–49.

Litz B et al. "Moral Injury and Moral Repair in War Veterans: A Preliminary Model and Intervention Strategy." *Clin Psychol Rev*. Dec 2009; 29:695–706. doi:10.1016/j.cpr.2009.07.003.

Liu M et al. "Use of Personal Protective Equipment Against Coronavirus Disease 2019 by Healthcare Professionals in Wuhan, China: Cross Sectional Study." *BMJ*. Jun 10, 2020; 369: m2195. doi:10.1136/bmj.m2195.

Liu Y et al. "Viral Dynamics in Mild and Severe Cases of COVID-19." *Lancet Infect Dis*. Mar 19, 2020; 20(6): 656–57. doi:10.1016/S1473-3099(20)30232-2.

Liu Z et al. "Mental Health Status of Doctors and Nurses During COVID-19 Epidemic in China." *SSRN* preprints with *The Lancet*. Mar 18, 2020. doi:10.2139/ssrn.3551329.

Lokken E. "Clinical Characteristics of 46 Pregnant Women with a SARS-CoV-2 Infection in Washington State." *Am J Obstet Gynecol*. May 18, 2020. doi:10.1016/j.ajog.2020.05.031.

London V et al. "The Relationship between Status at Presentation and Outcomes among Pregnant Women with COVID-19." *Am J Perinatol*. May 19, 2020. doi:10.1055/s-0040-1712164.

Luis C, Vance C. "A Pandemic Crisis: Mentoring, Leadership, and the Millennial Nurse." *Nursing Economic$*. May/Jun 2020; 38(3):152-63. http://www.nursingeconomics.net/necfiles/2020/MJ20/152.pdf.

Luthra S, Jewett C. "Widely Used Surgical Masks Are Putting Health Care Workers at Serious Risk." *Kaiser Health News*. Apr 20, 2020. https://khn.org/news/widely-used-surgical-masks-are-putting-health-care-workers-at-serious-risk.

MacMillan C. "What Does Recovery from COVID-19 Look Like?" Jun 19, 2020. Yale Medicine. https://www.yalemedicine.org/stories/covid-19-recovery.

Mancuso P et al. "Temporal Profile and Determinants of Viral Shedding and of Viral Clearance Confirmation on Nasopharyngeal Swabs from SARS-CoV-2-Positive Subjects: A Population-Based Study in Reggio Emilia." *SSRN* preprints with *The Lancet*. May 1, 2020. doi:10.2139/ssrn.3594635.

Mandavilli A. "C.D.C. Reverses Testing Guidelines for People Without Covid-19 Symptoms." *The New York Times*. Sep 18, 2020. https://www.nytimes.com/2020/09/18/health/coronavirus-testing-cdc.html.

Manganelli F et al. "Brainstem Involvement and Respiratory Failure in COVID-19." *Neurol Sci*. May 29, 2020. doi:10.1007/s10072-020-04487-2.

Mantri S et al. "Identifying Moral Injury in Healthcare Professionals: The Moral Injury Symptom Scale-HP." *J Relig Health*. Jul 17, 2020. doi:10.1007/s10943-020-01065-w.

Markwell A et al. "Clinical and Ethical Challenges for Emergency Departments During Communicable Disease Outbreaks: Can Lessons from Ebola Virus Disease Be Applied to the COVID-19 Pandemic?" *Emer Med Austral*. Jun 2020; 32(3): 520–24. doi:10.1111/1742-6723.13514.

Mason D, Friese C. "Protecting Health Care Workers Against COVID-19—and Being Prepared for Future Pandemics." *JAMA Health Forum*. Mar 19, 2020. https://jamanetwork.com/channels/health-forum/fullarticle/2763478.

Maunder R. "The Experience of the 2003 SARS Outbreak as a Traumatic Stress Among Frontline Healthcare Workers in Toronto: Lessons Learned." *Philos Trans R. Soc Lond B Biol Sci*. Jun 2, 2004; 359(1447): 1117–25. doi:10.1098/rstb.2004.1483.

Maunder R. "Was SARS a Mental Health Catastrophe?" *Gen Hosp Psychiatry*. Jul–Aug 2009; 31(4):316–17. doi:10.1016/j.genhosppsych.2009.04.004.

Maunder R et al. "Factors Associated with the Psychological Impact of Severe Acute Respiratory Syndrome on Nurses and Other Hospital Workers in Toronto." *Psychosom Med*. Jun 1, 2004; 66: 938–42. doi:10.1097/01.psy.0000145673.84698.18.

Mazza M et al. "Anxiety and Depression in COVID-19 Survivors: Role of Inflammatory and Clinical Predictors." *Brain Behav Immun*. Jul 30, 2020; S0889-1591(20)31606-8. doi:10.1016/j.bbi.2020.07.037.

McAlonan, G et al. "Immediate and Sustained Psychological Impact of an Emerging Infectious Disease Outbreak on Health Care Workers." *Can J Psychiatry*. Apr 1, 2007; 52(4): 241–47. doi:10.1177/070674370705200406.

McConnell D. "Balancing the Duty to Treat with the Duty to Family in the Context of the COVID-19 Pandemic." *J Med Ethics*. Jun 2020; 46(6): 360–63. doi:10.1136/medethics-2020-106250.

McFarling U. "The Pandemic is Taking an Outsized Toll on Filipino American Nurses." *STAT*. Apr 28, 2020. https://www.statnews.com/2020/04/28/coronavirus-taking-outsized-toll-on-filipino-american-nurses.

McGregory R. "An Analysis of Black–White Wage Differences in Nursing: Wage Gap or Wage Premium?" *Rev Black Pol Econ*. Mar 2011; 40(1): 31–37. doi:10.1007/s12114-011-9097-z.

McMullen K et al. "Impact of SARS-CoV-2 on Hospital Acquired Infection Rates in the United States: Predictions and Early Results." *Am J Infect Control*. Jul 2, 2020; S0196-6553(20)30634-9. doi:10.1016/j.ajic.2020.06.209.

Miller-Still R. "St. Elizabeth Nurses Went Three Weeks Without N-95 Masks." *Courier-Herald*. Apr 22, 2020. https://www.courierherald.com/news/st-elizabeth-nurses-went-three-weeks-without-n-95-masks.

Michigan Occupational Safety and Health Administration. "Emergency Rules, Coronavirus Disease 2019 (COVID-19)." Michigan Department of Labor and Economic Opportunity. Oct. 14, 2020. https://www.michigan.gov/documents/leo/Final_MIOSHA_Rules_705164_7.pdf.

Mlambo-Ngcuka P. "COVID-19: Women Front and Centre—Statement by Phumzile Mlambo-Ngcuka, UN Under-Secretary-General and UN Women Executive Director." *UN Women*. Mar 20, 2020. https://asiapacific.unwomen.org/en/news-and-events/stories/2020/03/statement-ed-phumzile-covid-19-women-front-and-centre.

Montemurro N. "The Emotional Impact of COVID-19: From Medical Staff to Common People. *Brain Behav Immun*. 2020; S0889-1591(20)30411-6. Jul 2020; 87: 23–24. doi:10.1016/j.bbi.2020.03.032.

Morawska L, Milton D. "It is Time to Address Airborne Transmission of COVID-19." *Clin Infect Dis*. Jul 6, 2020; ciaa939. doi:10.1093/cid/ciaa939.

Morley G et al. "What is 'Moral Distress'? A Narrative Synthesis of the Literature." *Nurs Ethics*. May 2019; 26(3): 646–62. doi:10.1177/0969733017724354.

Muench S et al. "Salary Differences between Male and Female Registered Nurses in the United States." *JAMA*. Mar 24/31, 2015; 313(12): 1265–67. doi:10.1001/jama.2015.1487.

National Academies of Sciences, Engineering, and Medicine. "Rapid Expert Consultation on Crisis Standards of Care for the COVID-19 Pandemic." *National Academies Press*. Mar 28, 2020. doi:10.17226/25765.

National Center for Health Workforce Analysis. Health Resources and Services Administration. "Brief Summary of Results from the 2018 National Sample Survey of Registered Nurses." U.S. Department of Health and Human Services. 2019. https://bhw.hrsa.gov/sites/default/files/bhw/health-workforce-analysis/nssrn-summary-report.pdf.

National Nurses United. "Antibody Testing for SARS-CoV-2/COVID-19." National Nurses United. Apr 20, 2020. https://act.nationalnursesunited.org/page/-/files/graphics/0420_Covid19_Issue-Brief_AntiBodyTesting1.pdf.

National Nurses United. "House Passes Bipartisan Bill to Prevent Workplace Violence for Health Care and Social Services Workers." National Nurses United. Nov 21, 2019. https://www.nationalnursesunited.org/press/house-passes-bipartisan-bill-prevent-workplace-violence-health-care-and-social-services.

National Nurses United. "Letter to Speaker Pelosi." National Nurses United. May 4, 2020. https://act.nationalnursesunited.org/page/-/files/graphics/Letter%20to%20Pelosi_with_Header_Signatures.pdf.

National Nurses United. "Model Standards for COVID-19 Surge: Hospital Preparation, Response, and Safety." National Nurses United. Apr 8, 2020. https://act.nationalnursesunited.org/page/-/files/graphics/0420_Covid19_ModelStandard-ForSurge_Flyer.pdf.

National Nurses United. "New Survey of Nurses Provides Frontline Proof of Widespread Employer, Government Disregard for Nurse and Patient Safety, Mainly Through Lack of Optimal PPE." National Nurses United. May 20, 2020. https://www.nationalnursesunited.org/press/new-survey-results.

National Nurses United. "N95 Respirator Decontamination and Reuse is Unsafe." National Nurses United. Mar 30, 2020. https://act.nationalnursesunited.org/page/-/files/graphics/0320_COVID19_RespiratorReuse.pdf.

National Nurses United. "National Campaign for Safe RN-to-Patient Staffing Ratios." National Nurses United. Aug 23, 2019. https://www.nationalnurses-unitedorg/ratios.

National Nurses United. "NNU COVID-19 Survey Results." National Nurses United. Jul 28, 2020. https://act.nationalnursesunited.org/page/-/files/graphics/0720_Covid19_Survey3_Results_Flyer_REV.pdf.

National Nurses United. "Nurses Demand States Close Again until COVID-19 Protection, Testing, Tracking Measures in Place." Press Release. National Nurses United. Jun 25, 2020. https://www.nationalnursesunited.org/press/nurses-demand-states-close-again-until-covid-19-protection-testing-tracking-measures-place.

National Nurses United. "Petition for an Emergency Temporary Standard on Emerging Infectious Diseases in Response to COVID-19." National Nurses United. Mar 4, 2020. https://act.nationalnursesunited.org/page/-/files/graphics/NNUPetitionOSHA03042020.pdf.

National Nurses United. "RN Staffing Ratios: A Necessary Solution to the Patient Safety Crisis in U.S. Hospitals." National Nurses United. Jun 2019. https://act.nationalnursesunited.org/page/-/files/graphics/0619_Ratios_Booklet_NNU.pdf.

National Nurses United. "Selection of Protective PPE for Nurses and Other Health Care Workers Caring for Patients with COVID-19." National Nurses United. Feb 16, 2020. https://www.nationalnursesunited.org/sites/default/files/nnu/files/pdf/flyers/0220_NNU_HealthSafety_COVID-19_PPE_Report.pdf.

National Nurses United. November 13, 2020, unpublished update to: "Sins of Omission: How Government Failures to Track Covid-19 Data Have Led to More Than 1,700 Health Care Worker Deaths and Jeopardize Public Health." National Nurses United. Sep 2020. https://act.nationalnursesunited.org/page/-/files/graphics/0920_Covid19_SinsOfOmission_Data_Report.pdf.

National Nurses United. "Survey of Nation's Frontline Registered Nurses Shows Hospitals Unprepared for COVID-19." National Nurses United. Mar 5, 2020. https://www.nationalnursesunited.org/press/survey-nations-frontline-registered-nurses-shows-hospitals-unprepared-covid-19.

National Nurses United. "Unpublished NNU COVID-19 Survey Results." National Nurses United. Aug 20, 2020.

Nguyen J. "Nurse Sends Her Kids to Live with Grandparents While She Fights Coronavirus." Channel 933. Mar 17, 2020. https://channel933.iheart.com/content/nurse-sends-her-kids-to-live-with-grandparents-while-she-fights-coronavirus-new-york/.

Nguyen L et al. "Risk of COVID-19 Among Front-Line Health-Care Workers and the General Community." *The Lancet*. Jul 31, 2020. doi:10.1016/S2468-2667(20)30164-X.

Norman S, Maguen S. "Moral Injury." National Center for PTSD. May 19, 2020. https://www.ptsd.va.gov/professional/treat/cooccurring/moral_injury_hcw.asp.

O'Halloran J. "I'm a Nurse in a Covid-19 Unit. My Hospital's Leaders Frighten Me More Than the Virus." *STAT*. May 6, 2020. https://www.statnews.com/2020/05/06/nurse-frightened-hospital-administrators-more-than-covid-19.

O'Leary L. "The Modern Supply Chain is Snapping." *The Atlantic*. Mar 19, 2020. https://www.theatlantic.com/ideas/archive/2020/03/supply-chains-and-coronavirus/608329.

Occupational Safety and Health Administration. "About OSHA." U.S. Department of Labor. Jun 23, 2020. https://www.osha.gov/aboutosha.

Occupational Safety and Health Administration. "COVID-19 Response Summary." U.S. Department of Labor. Nov 23, 2020. https://www.osha.gov/enforcement/covid-19-data.

Occupational Safety and Health Administration. "Infectious Disease Rulemaking." U.S. Department of Labor. Undated. https://www.osha.gov/dsg/id.

Occupational Safety and Health Administration. "OSHA Coronavirus-Related Issued Citations as of Thursday, November 12, 2020." U.S. Department of Labor. Nov 12, 2020. https://www.osha.gov/enforcement/covid-19-data/inspections-covid-related-citations.

Occupational Safety and Health Administration. "U.S. Department of Labor Cites Ohio Nursing Facilities for Failing to Fully Implement Respiratory Programs to Protect Employees from Coronavirus." U.S. Department of Labor. Jul 21, 2020. https://www.osha.gov/news/newsreleases/region5/07212020.

Occupational Safety and Health Administration. "U.S. Department of Labor Issues Enforcement Guidance for Recording Cases of COVID-19." U.S. Department of Labor. Apr 10, 2020. https://www.dol.gov/newsroom/releases/osha/osha20200410-2.

Office of the Governor. "Executive Order No. 2020-145, Safeguards to protect Michigan's workers from COVID-19, Rescission of Executive Order 2020-114." State of Michigan. Jul 9, 2020. http://www.legislature.mi.gov/documents/2019-2020/executiveorder/pdf/2020-EO-145.pdf.

Oregon Occupational Safety and Health. "Potential Oregon OSHA Rulemaking Timeline COVID-19/Infectious Diseases." *Oregon Occupational Safety and Health*. Jun 26, 2020. https://osha.oregon.gov/rules/advisory/infectiousdisease/Documents/Infectious-Disease-Public-Timeline.pdf.

Oxley T et al. "Large-Vessel Stroke as a Presenting Feature of COVID-19 in the Young." *N Engl J Med*. Apr 28, 2020; 382: e60. doi:10.1056/NEJMc2009787.

Panchal N et al. "The Implications of COVID-19 for Mental Health and Substance Abuse." Kaiser Family Foundation. Aug 21, 2020. https://www.kff.org/coronavirus-covid-19/issue-brief/the-implications-of-covid-19-for-mental-health-and-substance-use.

Parshley L. "The Emerging Long-Term Complications of COVID-19, Explained." *Vox*. Jun 12, 2020. https://www.vox.com/2020/5/8/21251899/coronavirus-long-term-effects-symptoms.

Passarelli P et al. "Taste and Smell as Chemosensory Dysfunctions in COVID-19 Infection." *Am J Dent*. May 4, 2020; 33(3): 135–37.

Paterson R et al. "The Emerging Spectrum of COVID-19 Neurology: Clinical, Radiological and Laboratory Findings." *Brain*. Jul 8, 2020; Awaa240. doi:10.1093/brain/awaa240.

Pattison N. "End-of-Life Decisions and Care in the Midst of a Global Coronavirus (COVID-19) Pandemic." *Intensive Crit Care Nurs*. Apr 2, 2020; 58: 102862. doi:10.1016/j.iccn.2020.102862.

Pawlowski A. "What are the Long-Term Health Consequences of COVID-19?" *Today*. Apr 16, 2020. https://www.today.com/health/coronavirus-long-term-health-covid-19-impact-lungs-heart-kidneys-t178770.

Pei S et al. "Differential Effects of Intervention Timing on COVID-19 Spread in the United States." *medRxiv*. May 29, 2020. doi:10.1101/2020.05.15.20103655.

Perkins T. "These Workers Spoke Out. Their Hospitals Fired Them." *Huffington Post*. Apr 27, 2020. https://www.huffpost.com/entry/hospitals-fire-doctors-nurses-covid-19_n_5ea2fcb1c5b6f9639813d50b.

Puelles V et al. "Multiorgan and Renal Tropism of SARS-CoV-2." *N Engl J Med*. Aug 6, 2020; 383:590–92. doi:10.1056/NEJMc2011400.

Pujadas E et al. "SARS-CoV-2 Viral Load Predicts COVID-19 Mortality." *Lancet Respir Med*. Aug 6, 2020. doi:10.1016/S2213-2600(20)30354-4.

Qadri F, Mariona F. "Pregnancy Affected by SARS-CoV-2 Infection: A Flash Report from Michigan." *J Matern Fetal Neonatal Med*. May 20, 2020. doi:10.1080/14767058.2020.1765334.

Rho H et al. "A Basic Demographic Profile of Workers in Frontline Industries." Center for Economic and Policy Research. Apr 2020. https://cepr.net/wp-content/uploads/2020/04/2020-04-Frontline-Workers.pdf.

Ridderbusch, K. "For Hospital Chaplains, Coronavirus Has Shifted Spiritual Care." *U.S. News and World Report*. Apr 22, 2020. https://www.usnews.com/news/healthiest-communities/articles/2020-04-22/coronavirus-shifts-spiritual-care-for-hospital-chaplains.

Roberge R et al. "Analysis of Forces Generated by N95 Filtering Facepiece Respirator Tethering Devices: A Pilot Study." *J Occup Environ Hyg*. 201; 9(8): 517–23.

Rollin P. "Why is the CDC 'Sitting on the Sidelines' in the Covid-19 fight?" *STAT*. Mar 26, 2020. https://www.statnews.com/2020/03/26/cdc-veteran-asks-why-is-cdc-sitting-on-the-sidelines-covid-19-fight/.

Rosenbaum L. "Facing Covid-19 in Italy—Ethics, Logistics, and Therapeutics on the Epidemic's Front Line." *N Engl J Med*. Mar 18, 2020; 382: 1873–75. doi:10.1056/NEJMp2005492.

Rosenbaum L. "Harnessing Our Humanity—How Washington's Health Care Workers Have Risen to the Pandemic Challenge." *N Engl J Med*. May 28, 2020; 382: 2069–71. doi:10.1056/NEJMp2007466.

Rossi R et al. "Mental Health Outcomes Among Frontline and Second-Line Health Care Workers During the Coronavirus Disease 2019 (COVID-19) Pandemic in Italy." *JAMA Netw Open*. 2020; 3(5): e2010185. doi:10.1001/jamanetworkopen.2020.10185.

Ruiz N et al. "Many Black, Asian Americans Say They Have Experienced Discrimination Amid the COVID-19 Outbreak." Pew Research Center. Jul 1, 2020. https://www.pewsocialtrends.org/2020/07/01/many-black-and-asian-americans-say-they-have-experienced-discrimination-amid-the-covid-19-outbreak.

Sacharczyk T. "Nurse Seeks Balance Between Caring for Patients and Her Family." NBC 10 News. Mar 25, 2020. https://turnto10.com/news/local/nurse-seeks-balance-between-caring-for-patients-and-her-family.

Sakr Y et al. "The Impact of Hospital and ICU Organizational Factors on Outcome in Critically Ill Patients." *Crit Care Med*. Mar 2015; 43(3): 519–26. doi:10.1097/CCM.0000000000000754.

Sanchez T. "Coronavirus: Nurses are Wearing Trash Bags at One Bay Area Hospital Facing a Protective Equipment Shortage." *San Francisco Chronicle*. Apr 2, 2020. https://www.sfchronicle.com/bayarea/article/Coronavirus-Nurses-are-wearing-trash-bags-at-one-15172777.php.

Sanders T et al. "As Doctors and Nurses Grow Desperate for Protective Gear, They Fear They're Infecting Patients." *ProPublica*. Mar 19, 2020. https://www.propublica.org/article/as-doctors-and-nurses-grow-desperate-for-protective-gear-they-fear-infecting-patients.

Scheiber N, Rosenthal BM. "Nurses and Doctors Speaking Out on Safety Now Risk Their Job." *The New York Times*. Apr 27, 2020. https://www.nytimes.com/2020/04/09/business/coronavirus-health-workers-speak-out.html.

Sentilhes L et al. "Clinical Course of 54 Pregnant Women with COVID-19: A Retrospective Review of Medical Records." *SSRN* preprints with *The Lancet*. May 12, 2020. doi:10.2139/ssrn.3582768.

Shamus K. "Michigan Doctors Seeing Glimmers of Hope as More Coronavirus Patients Sent Home." *Detroit Free Press*. Apr 10, 2020. https://www.freep.com/story/news/health/2020/04/09/michigan-coronavirus-outbreak-henry-ford-health/5123571002/.

Shanafelt T et al. Understanding and Addressing Sources of Anxiety Among Health Care Professionals During the COVID-19 Pandemic. *JAMA*. Apr 07, 2020; 323(21): 2133–34. doi:10.1001/jama.2020.5893.

Shay J. "Moral Injury." *Psychoanalytic Psychol*. 2014; 31(2):182–191. doi:10.1037/a0036090.

Shi S et al. "Association of Cardiac Injury with Mortality in Hospitalized Patients with COVID-19 in Wuhan, China." *JAMA Cardiol*. Mar 25, 2020. doi:10.1001/jamacardio.2020.0950.

Shugerman E. "Coronavirus Heroes Are Getting Tossed from Their Homes by Scared Landlords." *The Daily Beast*. Jun. 23, 2020. https://www.thedailybeast.com/coronavirus-nurses-face-eviction-housing-discrimination-from-scared-landlords.

Singh A et al. "Novel Coronavirus Disease 2019 (COVID-19) and Neurodegenerative Disorders." *Dermatol Ther.* May 15, 2020; e13591. doi:10.1111/dth.13591.

Sperati C. "Coronavirus: Kidney Damage Caused by COVID-19." Johns Hopkins Medicine. May 14, 2020. https://www.hopkinsmedicine.org/health/conditions-and-diseases/coronavirus/coronavirus-kidney-damage-caused-by-covid19.

Stam H et al. "Covid-19 and Post Intensive Care Syndrome: A Call for Action." *J Rehabil Med.* Apr 14, 2020. doi:10.2340/16501977-2677.

Stickings T. "Italian Nurse, 34, Kills Herself After Testing Positive for Coronavirus and Worrying She Had Infected Others." *Daily Mail*. Mar 25, 2020. https://www.dailymail.co.uk/news/article-8150503/Italian-nurse-34-kills-testing-positive-coronavirus.html.

Stokes E et al. Centers for Disease Control and Prevention. "Coronavirus Disease 2019 Case Surveillance — United States, January 22–May 30, 2020." *MMWR Morb Mortal Wkly Rep*. U.S. Department of Health and Human Services. Jun 19, 2020; 69(24):759–65. doi:10.15585/mmwr.mm6924e2.

Stoycheva V. "For Health Workers, COVID-19 Can Be a Moral Injury Pandemic." *Psychology Today.* Apr 13, 2020. https://www.psychologytoday.com/us/blog/the-everyday-unconscious/202004/health-workers-covid-19-can-be-moral-injury-pandemic.

Substance Abuse and Mental Health Services Administration. "Trauma-Informed Care in Behavioral Health Services: Treatment Improvement Protocol (TIP) Series 57; Exhibit 1.3–4, DSM-5 Diagnostic Criteria for PTSD." U.S. Department of Health and Human Services. 2014. https://store.samhsa.gov/sites/default/files/d7/priv/sma14-4816.pdf.

Tenforde M et al. "Symptom Duration and Risk Factors for Delayed Return to Usual Health Among Outpatients with COVID-19 in a Multistate Health Care Systems Network—United States, March–June 2020." *MMWR Morb Mortal Wkly Rep*. Jul 31, 2020; 69:993–98. doi:10.15585/mmwr.mm6930e1.

Twohey M. "New Battle for Those on Coronavirus Front Lines: Child Custody." *The New York Times*. Apr 7, 2020. https://www.nytimes.com/2020/04/07/us/coronavirus-child-custody.html.

Tyson Foods, Inc. "Tyson Foods to Indefinitely Suspend Waterloo Operations." Tyson Foods, Inc. Apr 22, 2020. https://www.tysonfoods.com/

news/news-releases/2020/4/tyson-foods-indefinitely-suspend-waterloo-operations.

U.S. Bureau of Labor Statistics. "Average Hourly Wage for Registered Nurses, Nonunion, for All US, 2018." Modeled Wage Estimates. U.S. Department of Labor. Data extracted on May 15, 2020. https://beta.bls.gov/dataViewer/view/timeseries/WMU00000001020000002911412400.

U.S. Bureau of Labor Statistics. "Employed persons by detailed occupation, sex, race, and Hispanic or Latino ethnicity, 2019." Current Population Survey. U.S. Department of Labor. Jan 2020. https://www.bls.gov/cps/cpsaat11.pdf.

U.S. Bureau of Labor Statistics. "National Compensation Survey-Benefits, Leave Benefits: Access, Private Industry Workers, March 2019." U.S. Department of Labor. Sep 2019. https://www.bls.gov/ncs/ebs/benefits/2019/ownership/private/table31a.pdf.

U.S. Bureau of Labor Statistics. "Occupational Employment and Wages—May 2019." U.S. Department of Labor. Mar 31, 2020. https://www.bls.gov/news.release/archives/ocwage_03312020.htm.

U.S. Department of Labor. "Hazard Pay." U.S. Department of Labor. May 15, 2020. https://www.dol.gov/general/topic/wages/hazardpay.

"U.S. Doctors Enduring Verbal Abuse on the Frontlines." Mar 30, 2020. *Reuters*. https://www.reuters.com/video/watch/idRCV0080S0.

U.S. Food and Drug Administration. "Battelle Decontamination System—Letter of Authorization." U.S. Food and Drug Administration. Jun 6, 2020. https://www.fda.gov/media/136529/download.

U.S. Senate Democrats. "The COVID-19 'Heroes Fund.'" Summary. Apr 7, 2020. https://www.democrats.senate.gov/imo/media/doc/Heroes%20Fund%20FINAL%204.7.20.pdf.

van Doremalen N et al. "Aerosol and Surface Stability of SARS-CoV-2 as Compared with SARS-CoV-1." *N Engl J Med*. Apr 16, 2020; 382: 1564–67. doi:10.1056/NEJMc2004973.

Varatharaj A et al. "Neurological and Neuropsychiatric Complications of COVID-19 in 153 Patients: A UK-Wide Surveillance Study." *The Lancet*. Jun 25, 2020. doi:10.1016/S2215-0366(20)30287-X.

Varcoe C et al. "Moral Distress: Tensions as Springboards for Action." HEC Forum. Mar 2012; 24(1): 51–62. doi:10.1007/s10730-012-9180-2.

Virginia Interfaith Center for Public Policy. "Strengthen Emergency Temporary Standard." Petition. Virginia Interfaith Center for Public Policy. https://virginiainterfaithcenter.ourpowerbase.net/civicrm/petition/sign?sid=109&reset=1.

Virginia Safety and Health Codes Board. "Continued Emergency Electronic Meeting on the Draft Emergency Temporary Standard: Infectious Disease Prevention: SARS-CoV-2 That Causes COVID-19 16 VAC 25-220." Virginia Safety and Health Codes Board. Jun 29, 2020. https://www.doli.virginia.gov/wp-content/uploads/2020/06/Board-Amendment-Notes-and-Summary-of-COVID-19-ETS-June-29-2020-SHCB-Continuation-Emergency-Meeting.pdf

Wang H et al. "Natural Course, Recovery and Fatality in Severely Ill Patients with SARS-CoV-2 Related Pneumonia: A Single-Centered, Retrospective, Observational Cohort Study." *SSRN* preprints with *The Lancet*. Apr 23, 2020. doi:10.2139/ssrn.3586682.

Warren E. "At Warren, Peters, and Murray Request, Independent Watchdog Agrees to Investigate Trump Administration Political Interference at FDA and CDC." Senator Elizabeth Warren. October 19, 2020. https://www.warren.senate.gov/newsroom/press-releases/at-warren-peters-and-murray-request-independent-watchdog-agrees-to-investigate-trump-administration-political-interference-at-fda-and-cdc.

Washington D. "Nurse Attacked on Her Way to Work, Suspect Believed She Exposed Community to COVID-19." KOKH. Apr 2, 2020. https://okcfox.com/news/coronavirus/nurse-attacked-on-her-way-to-work-suspect-believed-she-was-spreading-covid-19.

Washington Congressional Delegation. "Letter to CDC Director Redfield." Mar 4, 2020. Link to letter provided in Gollan J, Shogren E (May 11, 2020): https://www.documentcloud.org/documents/6884965-WA-Delegation-Letter-to-Redfield.html.

Watkins A et al. "Top E.R. Doctor Who Treated Virus Patients Dies by Suicide." *The New York Times*. Apr 29, 2020. https://www.nytimes.com/2020/04/27/nyregion/new-york-city-doctor-suicide-coronavirus.html.

Whirman E. "'Taking Masks Off Our Faces': How Arizona Hospitals Are Rationing Protective Gear." *Phoenix New Times*. Mar 20, 2020. https://www.phoenixnewtimes.com/news/arizona-hospitals-rationing-masks-protective-gear-banner-11459400.

White D. "Hospital Workers Send Kids Away, Live in Campers to Protect Family During Coronavirus."

Kansas City Star. Apr 8, 2020. https://www.kansascity.com/news/coronavirus/article241859741.html. Whittaker A et al. "Neurological Manifestations of COVID-19: A Review." *Acta Neurol Scand.* May 15, 2020; 142. doi:10.1111/ane.13266.

Whoriskey P et al. "Thousands of OSHA Complaint Filed Against Companies for Virus Workplace Safety Concerns, Records Show." *The Washington Post*. Apr 16, 2020.

Wiley M. "'I Feel So Overwhelmed': COVID-19 and Police Violence Takes a Toll on Black Health Care Workers." KQED. Jun 24, 2020. https://www.kqed.org/news/11825898/i-feel-so-overwhelmed-covid-19-and-police-violence-takes-a-toll-on-black-health-care-workers?.

Williamson V et al. "COVID-19 and Experiences of Moral Injury in Front-Line Key Workers." *Occup Med (Lond.).* Apr 2, 2020; kqaa052. doi:10.1093/occmed/kqaa052.

Wingfield A. "The Disproportionate Impact of Covid-19 on Black Health Care Workers in the U.S." *Harvard Business Review.* May 14, 2020. https://hbr.org/2020/05/the-disproportionate-impact-of-covid-19-on-black-health-care-workers-in-the-u-s.

Witters D. "In U.S., 14 percent With Likely COVID-19 to Avoid Care Due to Cost." *Gallup.* Apr 28, 2020. https://news.gallup.com/poll/309224/avoid-care-likely-covid-due-cost.aspx.

Wolfel R et al. "Virological Assessment of Hospitalized Patients with COVID-2019." *Nature.* Apr 1, 2020; 581: 465–69 (2020). doi:10.1038/s41586-020-2196-x.

Worcester S. "Higher Death Rate in Cancer Patients with Nosocomial COVID-19." *Medscape.* Jul 31, 2020. https://www.medscape.com/viewarticle/934977.

World Health Organization. "Transmission of SARS-CoV-2: Implications for Infection Prevention Precautions." World Health Organization. Jul 9, 2020. https://www.who.int/news-room/commentaries/detail/transmission-of-sars-cov-2-implications-for-infection-prevention-precautions.

Wu D et al. "COVID-19: Reduced Lung Function and Increased Psycho-emotional Stress." *Bioinformation.* Apr 30, 2020; 16(4): 293–96. doi:10.6026/97320630016293.

Wu P et al. "The Psychological Impact of the SARS Epidemic on Hospital Employees in China: Exposure, Risk Perception, and Altruistic Acceptance of Risk." *Can J Psychiatry*. May 2009; 54(5): 302–11. doi:10.1177/070674370905400504.

Yang Z, Liu Y. 2020. "Vertical Transmission of Severe Acute Respiratory Syndrome Coronavirus 2: A Systematic Review." *Am J Perinatol.* May 13, 2020. doi:10.1055/s-0040-1712161.

Yearby R, Mohapatra S. "Structural Discrimination In COVID-19 Workplace Protections." *Health Affairs.* May 29, 2020. https://www.healthaffairs.org/do/10.1377/hblog20200522.280105/full.

Zaka A et al. "COVID-19 Pandemic as a Watershed Moment: A Call for Systematic Psychological Health Care for Frontline Medical Staff. *J Health Psychol.* Jun 2020; 25(7): 883–87. doi:10.1177/1359105320925148.

Zambrano L et al. Centers for Disease Control and Prevention. "Update: Characteristics of Symptomatic Women of Reproductive Age with Laboratory-Confirmed SARS-CoV-2 Infection by Pregnancy Status — United States, January 22–October 3, 2020." *MMWR Morb Mortal Wkly* Rep. U.S. Department of Health and Human Services. Nov 6, 2020; 69(44):1641–47. doi:10.15585/mmwr.mm6944e3.

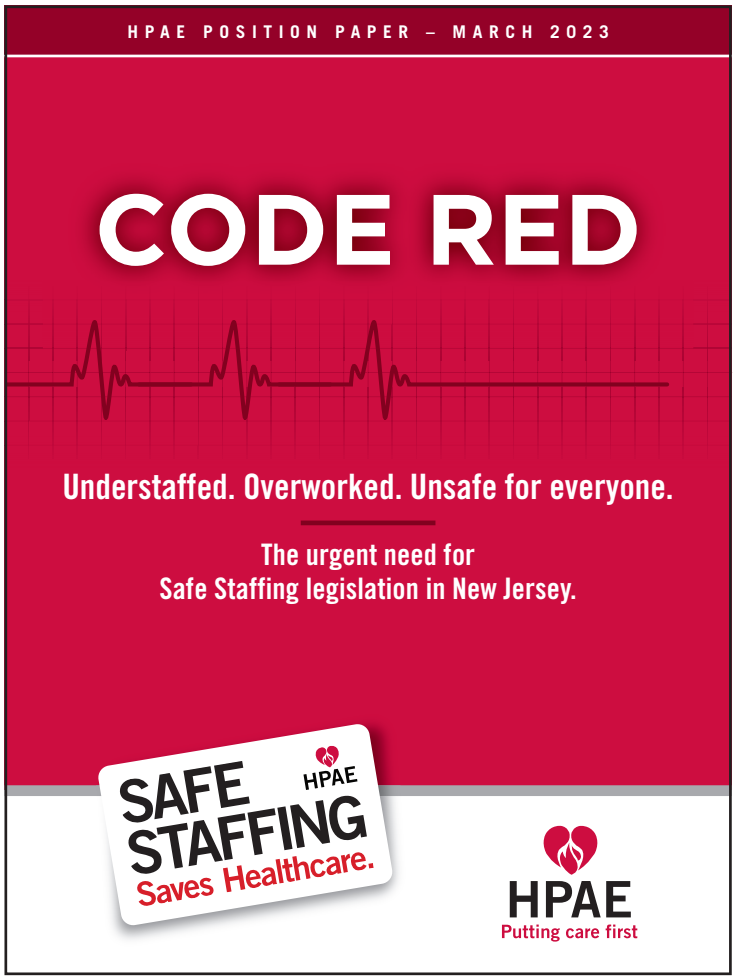
Zeng L et al. "Neonatal Early-Onset Infection With SARS-CoV-2 in 33 Neonates Born to Mothers With COVID-19 in Wuhan, China." *JAMA Pediatr.* Mar 26, 2020. doi:10.1001/jamapediatrics.2020.0878.

Zeng Q et al. "Clinical Course and Treatment Efficacy of COVID-19 near Hubei Province, China: A Multicentre, Retrospective Study." *Transbound Emerg Dis.* Jun 12, 2020. 00:1–12. doi:10.1111/tbed.13674.

Zhang W et al. "Mental Health and Psychosocial Problems of Medical Health Workers during the COVID-19 Epidemic in China." *Psychother Psychosom*. Apr 9, 2020. doi:10.1159/000507639.

Zheng S et al. "Viral Load Dynamics and Disease Severity in Patients Infected with SARS-CoV-2 in Zhejiang Province, China, January–March 2020: Retrospective Cohort Study." *BMJ.* Apr 21, 2020; 369:m1443. doi:10.1136/bmj.m1443.


SAVE LIVES
Protect Nurses
California Nurses Association
National Nurses Organizing Committee
National Nurses United
SAVE LIVES
National Nurses United
www.NationalNursesUnited.org


HPAE POSITION PAPER – MARCH 2023
CODE RED
Understaffed. Overworked. Unsafe for everyone.
The urgent need for
Safe Staffing legislation in New Jersey.
SAFE STAFFING
HPAE
Saves Healthcare.
HPAE
Putting care first

CODE RED UNDERSTAFFED. OVERWORKED. UNSAFE FOR EVERYONE.

Message from HPAE's President

The State of Our Healthcare System: A Gathering Catastrophe

Understaffing is driving our healthcare system to the brink of collapse. That is why HPAE, New Jersey's largest union of healthcare workers, is pushing the state legislature to pass a law in Trenton this year mandating enforceable staffing ratios.

The problem is clear – frontline healthcare workers continue to migrate out of bedside nursing at an alarming rate because of untenable working conditions. Driven in large part by working shorthanded, this unsafe work environment has led to tremendous burnout in the profession as many more leave healthcare due to stress. And when healthcare workers suffer – the unavoidable result is patient care suffers.

If we do not come up with multifaceted programs to solve this issue, with a focus on both recruitment and retention- including safe staffing legislation, there will be dire consequences on the delivery of care for all New Jerseyans. Most certainly we must recruit new nurses into the field to help alleviate the critical shortage, but this is not enough. We must also provide incentives to not only lure back nurses who have left the field, but also to retain nurses who remain at the bedside. We must stop the current migration out of the field.

HPAE has long championed staffing legislation to improve staffing at healthcare facilities. But lobbyists for corporations that own hospitals – both for profit and non-profit – that are laser-focused on their profits, have successfully beaten back legislative solutions to the issue.

Through our contracts with employers, HPAE has tried to solve some of the most vexing problems locally. For instance, HPAE Local 5058 members at Jersey Shore University Medical Center surveyed members in 2022 who were frustrated with, among other things, the hospital's inability to staff adequately and the problems created.

These local leaders then brought the survey results to their employer at the bargaining table, as well as many members to testify at bargaining to the severity of understaffing. Armed with proposals to address issues around safety, recruitment, and retention, Local 5058 prevailed in gains toward better staffing within their hospital.

We will continue to bargain with individual employers going forward, but we need to solve this crisis with systemic change to end the exodus of nurses and other healthcare professionals from the industry.

In 2022, HPAE released the results of a multi-phase statewide survey we undertook to better understand the experiences, challenges, and needs of hospital nurses in these unprecedented times.

CODE RED UNDERSTAFFED. OVERWORKED. UNSAFE FOR EVERYONE.

We confirmed overworked and poorly compensated New Jersey nurses are leaving the profession in droves, saying hospital safety is on the decline. Some of the staggering findings in this statewide survey on the staffing crisis include:

- Nearly a third of nurses have left the bedside (hospitals) in the past three years.
- Of those nurses that remain at the bedside, 72% have considered leaving recently.
- Newer nurses are the most likely to consider leaving the bedside (95% of those with five years of experience or less).
- The number one reason nurses are leaving hospitals is poor staffing.
- The second is related to the first: burnout and stress.

This should be a wake-up call, not just to these healthcare corporations, but to our legislators and regulators. Deep into the third year of a global pandemic that has shaken and changed every corner of our society, we must do things differently.

The uncomfortable truth is hospitals are now simply healthcare "corporations" with only one goal: profits. For years, staffing has been a line item in a budget, cut to its lowest number to maximize those profits. Because of this, hospitals were already short-staffed with the onset of the pandemic. The pandemic itself only exacerbated a crisis that began with budget decisions of down-staffing made by these hospital corporations.

"It's the money. It's the hospitals, these companies want money, so they don't wanna pay enough nurses. And so we're short-staffed. And so no one wants to do that kind of job where you're in an unsafe environment." [1]

It may be understandable why corporations and their lobbyists would resist anything adding to their costs and reducing their profits. But what is truly incomprehensible is why our legislators would go along with the shortsighted focus on profits and fail to see the urgency of solving a crisis with the very lives of patients at risk.

Staffing is an asset with patient outcomes improving dramatically with higher numbers of nurses and other healthcare workers. Research by Linda Aiken, Matthew McHugh and others is clear: in places where staffing is better, patients benefit. California, the only state with enforceable staffing ratios, bears this out. A 2010 study from NIH showed "Hospital nurse staffing ratios mandated in California are associated with lower mortality and nurse outcomes, predictive of better nurse retention in California."* What more proof do we need? The solution is clear… it is the political will that is in doubt.

Our healthcare system is in crisis as we continue to lose these dedicated "healthcare heroes" to burnout and stress. Patients will suffer. We must stop the bleed. The answer must start with an enforceable safe staffing law in New Jersey and nationally.

Debbie White

Debbie White, RN
President, HPAE

*Aiken, Linda, et.al. "Implications of the California Nurse Staffing Mandate for Other States." Health Services Research, 2010 Aug; 45(4):904-921.

Introduction

As frontline caregivers and nurses, we know safe staffing is crucial to the health and well-being of our patients and our ability to provide quality, professional care. It is also crucial to patient satisfaction, nursing retention and safety, and hospital reimbursement levels.

One study estimating the costs of increases in nurse staffing levels found that it's "cost neutral" for hospitals. Due to fewer avoidable adverse events, shorter lengths of stay, and shorter readmissions, additional labor costs are completely offset.[3]

New Jersey's current nurse staffing regulations have not been updated since 1987 and fail to cover broad areas such as medical-surgical units and emergency departments. Since 1987, technology, reduced hospital stays, and patient acuity[4] have undergone drastic changes, but our regulations have remained stagnant, unchanged, and unenforced. Hospitals are left to their own devices, with little oversight or enforcement.

Hospitals will argue they need flexibility, and call staffing ratios 'one size fits all'. Nurses will tell you hospitals already use a staffing 'matrix', but too often the numbers are based on budgets, and who is available, rather than what patients need. In addition, the ratios HPAE proposes follow national nurse practice guidelines, for example, in ICU, and post-operative recovery care.

> ***"Today, when I visit a hospital, clinic or health department and ask staff how they're doing, many tell me they feel exhausted, helpless and heartbroken. They still draw strength from their colleagues and inspiration from their patients, but in quiet whispers they also confess they don't see how the health workforce can continue like this. Something has to change, they say."***
>
> ***– Vivek H. Murthy, U.S. Surgeon General[2]***

Frequently, nurses are working under conditions with so many patients they fear putting their license at risk if an adverse event occurs. Nurses know from experience when something bad happens, there must be someone to blame. Because they are doing direct patient care in life-or-death circumstances, overloading nurses with patients creates a perfect storm for errors not of their own making. Yet, they could be the one facing blame and loss of their license, when, in fact, the reason the mistakes were made was because they were working short-staffed and overwhelmed.

The confluence of understaffing for greater profits pre-pandemic and the COVID-19 pandemic has shown all of us that healthcare systems in the United States are on the brink of structural failure. An already burned-out workforce, subjected to the trauma of the pandemic, caused many to then make the decision to leave the workforce. If New Jersey does not enact enforceable staffing ratios it will only continue to perpetuate what is turning into a public health and humanitarian crisis within its healthcare infrastructure.

Why New Jersey Needs Better Staffing Ratios: Saving Lives, Reducing Errors

> ***"The staffing is absolutely unsafe. I was recently in a three-patient assignment and another patient coded and I was pulled away from my patients to assist with the code. I am frequently in a three-patient assignment and our patients are suffering. We are unable to turn patients to reposition them appropriately and have had two falls due to poor staffing. Recently a nurse started TTM – [targeted temperature management] on a patient but had another patient in their assignment. These conditions are incredibly unsafe and make me not want to come to work. Every day I come to work I am putting my license on the line by working through unsafe conditions. My license is how I make a living to feed my family and pay my mortgage. If I lose my nursing license, I lose a lot of things in my life."[5]***

Currently New Jersey has few staffing regulations and only for critical care units (CCU) and intensive care units (ICU) that have been in effect since 1987. Most are woefully inadequate and outdated given present healthcare needs and services. For example, the industry recommendation for ICU/CCU is 1 nurse to 2 patients,[6] but New Jersey's regulations post 1 nurse to 3 patients. All other units not covered by any staffing ratios force nurses to work under unsustainable conditions, involuntarily placing their patients at risk. Compared to California's mandated staffing ratios, New Jersey has next to no regulation limiting the number of patients per nurse (see Table 1).

Table 1: California RN to Patient Staffing Ratios vs New Jersey RN to Patient Staffing Ratios

Type of Care	CA RNs to Patients	NJ RNs to Patients
Intensive/Critical Care	1:2	1:3
Neo-natal Intensive Care	1:2	1:2
Operating Room	1:1	1:1
Post-anesthesia Recovery	1:2	1:3
Labor and Delivery	1:2	No*
Antepartum	1:4	No
Postpartum couplets	1:4	No
Postpartum women only	1:6	No
Pediatrics	1:4	No
Emergency Room	1:4	1:ER Dept*
ICU Patients in the ER	1:2	No
Trauma Patients in the ER	1:1	No
Step Down, Initial	1:4	No
Step Down, 2008**	1:3	No
Telemetry, Initial	1:5	No
Telemetry, 2008**	1:4	No
Medical/Surgical, Initial	1:6	No
Medical/Surgical, 2008**	1:5	No

*The hospital shall have in place a protocol to increase nurse staffing based on volume and acuity.
**2008 refers to an amendment to the CA staffing ratios affecting specific facilities.

Source: California Nurses Association and N.J.A.C. 8:43G.

CODE RED — UNDERSTAFFED. OVERWORKED. UNSAFE FOR EVERYONE.

With too many patients at higher acuity levels due to patients deferring care and the ongoing COVID-19 pandemic contributing to the severity of patient conditions, nurses are overworked and understaffed. The increased level of stress has led to nurse burnout, with more nurses leaving the bedside or considering leaving the profession.

Studies show repeatedly that understaffing compromises patient care and safety:

- A one-patient increase in a nurse's workload increases the likelihood of an in-patient death within 30 days of admission by 7 percent.[8]
- Mortality risk decreases by 9 percent for ICU patients and 16 percent for surgery patients with the increase of one full time RN per patient day.[9]
- Nurse staffing shortages are a factor in one out of every four unexpected hospital deaths or injuries caused by errors.[10]

"Staffing ratios are absolutely absurd in the ED. There are too many patients for the ED to function regardless of staffing most days. The ED staff is literally dropping like flies with little to no replacements making the environment hostile and extremely unsafe. The ED nurses RISK THEIR ACTIVE LICENSE plus PATIENTS LIVES everyday they come to work. It shouldn't be this way." [7]

- In a 2021 study, each additional sepsis patient per nurse was associated with 19% higher odds of in-hospital mortality.[11]
- A recent study of New York hospitals showed significant decreases in patient deaths would occur if patient care was limited to a ratio of 4 patients to 1 nurse: 4,370 deaths (authors' conservative estimate) would likely have been avoided in New York just among Medicare patients during the two-year study.[12]

Having fewer nurses increases the likelihood of medication errors, hospital acquired infections, and other complications due to impossible patient loads:

- A study of medication errors in two hospitals found nurses were responsible for intercepting 86% of all medication errors made by physicians, pharmacists and others before the error reached the patient.[13]
- Lower nurse staffing levels led to higher rates of blood infections, ventilator-associated pneumonia, 30-day mortality, urinary tract infections and pressure ulcers.[14]

As nurse staffing levels increase, patient risk of hospital acquired complications and hospital length of stay decrease, resulting in medical cost savings, improved national productivity, and lives saved.[15] Under California's mandated staffing ratios, patients receive on average two to three more hours of registered nurse care than patients in states without ratios.[16]

Occupational safety decreases with fewer staff as well:

- One study showed occupational injuries for RNs and LPNs were higher in California before mandated staffing ratios. Once implemented, injury rates dropped significantly: 32% for RNs and 34% for LPNs.[17]
- Physical and verbal workplace violence of patient/visitor toward nurses/staff increases with less staffing, adding to an already stressful work environment.[18] Workplace violence is not only a danger to nurses, but also to patients due to work disruptions and staff distractions.

> ***"We have had more nurses leave my unit in the last year than I have seen in my entire career! We are constantly training brand new nurses to work in an ICU. I believe since April we trained over 30 new nurses and many of them leave. It's hard for the experienced nurses to constantly be training new staff and then having them leave to go work at our sister hospitals for more money! Many days we have no secretaries and only one housekeeper who leaves at 3. Nurses are cleaning equipment, moving patients, and answering the phone, answering the door and screening visitors."*** [19]

Nurses are often required to take on duties not related to direct nursing care due to shortages of other staff as well. Having to transport patients, clean, deliver or clear meals, keeps nurses from providing the care they are required to provide. Nurses are increasingly expected to absorb new tasks without any lessening of their current duties, creating a chronic problem: forcing them to do more with fewer resources (staff).

Burnout is the biggest threat to healthcare workers. When the corporate healthcare business model is to extract more work out of fewer people for greater profits in a caring profession, the breaking point may take longer to reach but the physical and emotional toll it takes on staff is unconscionable. Prior to the COVID-19 pandemic, female nurses were at twice the risk of dying by suicide as women in the general population; researchers expect that has increased with the advent of the pandemic.[20]

> ***"Every day that I work is overwhelming for the nurses and staff, and unsafe for patient care. It is draining and exhausting. Nurses, myself included, are in literal tears during the shift because of how overwhelming it is. Yet, hospital management does not seem to care about this. They provide us with the poor patient survey results and want to know what we, the nurses, can do to improve the scores. We are already giving everything we have! We have become transport, EVS, and kitchen staff, just to name a few."*** [21]

Safe Staffing Saves Money: Debunking the Cost Factor

A leading argument against staffing ratios made by hospital corporations is in relation to cost. Hospital operators always drag out the "it will cost too much to maintain staffing ratios" trope. Investigative reporting has shown that hospital corporations have been cutting staffing levels for decades due to an obsession with increased profits.[22] A 2022 study called the shortage of hospital nursing care as "…largely the result of chronic nurse understaffing by design."[23] When New Jersey non-profit hospital corporations are reaping tens and even hundreds of millions of dollars in profit each year, it is highly unlikely that adding a few nurses into the rotation will cause financial hardship.[24]

> ***"I don't believe they actually care about patient safety or any employee whatsoever. All they really care about is money and it shows in the way they treat their employees and the fact that they don't care if a unit is so short-staffed patient care is compromised. I feel upper management will ask what they can do to improve things just to try to make employees think they care but never actually listen or care what employees give as feedback. They are fully aware there are issues but do nothing about it."*** [25]

"I came into this career with a strong desire to help others, to care for them when under extreme health crises, but I find I am constantly playing beat the clock: there is an expectation that I will save as many lives as possible with as little help as possible and just suck it up. I am imploring you to support safe staffing legislation. No one's health should be put at risk, whether the patient or the nurse, for the sake of profit."[26]

Studies show that because increased staffing reduces readmissions, infections, medical errors, and death, costs decline because of decreased length of stays and avoided readmissions.[27]

A 2021 study over two years showed projected cost savings for hospitals in New York state of $720 million if ratios of four patients to one nurse had been mandated.[28] Another study estimated $6.1 billion would be saved in reduced patient care if 133,000 nurses were added to the U.S. hospital workforce.[29]

Research shows when California increased staffing to meet mandated ratios "hospitals saw sustained improvement in staffing including in safety-net hospitals which often operate on razor-thin margins."[30] Frequently hospital corporations say the extra cost of staffing with ratios may force them to end some services or close altogether – in twenty years, no hospital in California has closed due to mandated increased staffing.[31]

"The ER is a disaster zone. The expectation to provide adequate care for six-plus patients when, in some cases, that includes multiple ICU patients in addition to four other patients on top of that who are the highest acuity and require a room and not to be left sitting in the hallway is dangerous and unrealistic. Staff is exhausted, burnt out, and truly in fear for their licenses."[32]

One way hospitals have compensated for cutting staff is through the hiring of agency nurses when there are no other options for coverage. Prior to the pandemic, agency nurses made up just 2% of hospitals' total labor costs (but at twice the hourly wage rate) in 2019.[33] In 2022, agency nurses made up 11% of hospital labor expenses, more than five times greater than pre-pandemic levels.[34]

Some of this increase is due to the inflated costs charged by staffing agencies during the pandemic – travel nurse wages increased 106%, more than three times that of hospital employee nurses, during the pandemic[35] – but the shortage of nurses created prior to the pandemic by employers placed a greater demand on travel nurses as hundreds of thousands of patients flooded hospitals with COVID-19. This means travel nurses cost hospitals far more than if they had hired more full-time staff nurses prior to the pandemic which would have mitigated some of the need for agency nurses during the influx of severely ill patients.

"A nurse should not work in fear of losing their license due to unsafe work conditions. We feel like that every day. Two nurses responsible for 40 or more patients as well as the constant flow of new patients? No lunch breaks? Large room assignments? This is not safe!! No wonder why amazing, experienced nurses are leaving when other area hospitals are offering over $100 an hour extra to staff the hospital to make it safer and help patient care."[36]

Changes in Medicare reimbursement and the Affordable Care Act now penalize low patient satisfaction scores and high readmission or infection rates and medical errors –all directly linked to unsafe nurse staffing. Safe staffing would lower, if not eliminate, the penalties hospitals incur, saving individual hospitals millions of dollars a year.

The fines from Centers for Medicare & Medicaid Services (CMS) seem to be nothing more than the cost of doing business for wealthy hospital corporations. In 2015, New Jersey hospitals paid approximately $23 million in penalties with 97% of NJ hospitals getting charged by Medicare; more New Jersey hospitals were penalized than in any other state in the country.[37] Between 2015 and 2022, up to 64 hospitals have faced CMS penalties (New Jersey has approximately 72 hospitals with several specialty hospitals exempt from CMS penalties).[38]

With more nurses to care for patients CMS patient scores would increase, while readmission and infection rates would go down. Patient satisfaction increases on units characterized as having adequate staff, where patients were more than twice as likely to report high satisfaction with their care, and their nurses reported significantly lower burnout.[39] There was a ten-point difference in the percentage of patients who would definitely recommend the hospital they were treated in – depending on whether patients were in a hospital with a good work environment for nurses.[40]

"One of the main reasons for not being able to take a break has to do with short-staffing. The demands of our patients cannot be unmet. As nurses we guarantee some of the basic aspects of health for our patients, like nutrition, rest, and removal from constant stressors, and yet we as caregivers are not assured the same while on the job. If we do not have enough nurses on a shift, we all suffer without breaks and no time to eat anything. If we don't have quiet time to re-balance the emotional and physical demands of our job while on duty, it will make it more difficult to provide the high-quality care we as nurses' demand of ourselves."[41]

It is also important to keep in mind hospitals increasingly share in the rewards of lower patient care costs. The Affordable Care Act established several payment mechanisms to return patient care cost savings back to hospitals, like accountable care organizations and payment incentive programs to lower costs and improve outcomes. In this light, safe nurse staffing levels should be seen as a long-term investment in patient outcomes rather than a short-term cost. One of the main goals of healthcare reform is to keep patients out of the hospital for costly and avoidable readmissions.

"When it comes to teaching new hires, the hospital doesn't care if they learn proper, evidence-based practice, because if they did, they would provide more than one nurse educator for a unit that staffs close to 80 nurses. They would provide more than two assistant nurse managers for each shift that staffs with close to 17 nurses most days. Give us the resources we need to succeed and to treat our patients better. Enough with cutting corners and saving a buck, it takes money to make money. Show your nurses, the absolute backbone of the organization, that you value them."[42]

Additionally, fewer work related injuries occur with more nurses on duty,[43] which save on worker compensation claims, employer worker compensation rates, and overtime pay for filling hours of injured workers. A study of the impact of California's staffing mandate on occupational injuries among registered nurses (RNs) and licensed practical nurses (LPNs) found RN injury rates were reduced by 32% and rates were reduced 34% for LPN injuries.[44] Reducing injury rates by a third would make significant financial savings not just for employers but also for worker compensation funds.

The U.S. spends twice as much on healthcare than any other high-income country, and yet has worse outcomes.[45] The U.S. has the lowest life expectancy at birth, the highest death rates for avoidable or treatable conditions, and the highest maternal and infant mortality.[46] Yet we pay more than any other high-income country – for worse results.[47] It is perverse that hospital corporations choose to understaff in order to maximize profits when patients are paying with their lives for that choice. Staffing ratios will lower costs and improve patient outcomes for the people of New Jersey.

"As an ER nurse there are no nurse-to-patient ratios. While an ICU nurse might have 2–3 patients who require critical care, my average assignment is 6–7 patients. Of those I can have multiple critical care patients. Not too long ago we were short-staffed. I had 12 beds assigned to me in the ER… It was me, 12 patients and a secretary. The ER never closes." [48]

The Deep Pockets of Opposition to Staffing Ratios

One of the biggest obstacles to getting staffing ratio legislation passed are the deep pockets of hospital interest groups and lobbyists to defeat any measures. In 2018, Massachusetts had a ballot question for voters to decide if the state should adopt nurse staffing ratios. It was reported that hospital groups spent $25 million to defeat the ballot initiative, largely through a campaign that peddled fear and chaos of possible hospital closures and cuts to services to the Massachusetts citizenry.[49]

Hospitals promised a grim reality with passage of the Massachusetts ballot question, but once it was defeated, within a couple of months some hospitals across the state closed much needed units such as emergency rooms, inpatient mental health patient services, and inpatient pediatric units.[50] The fear-based arguments about regulating staffing ratios worked for the hospitals' opposition campaign but were disingenuous and harmful to patient care.

In New Jersey, between 2015 and 2022 the New Jersey Hospital Association (NJHA) made 507 significant regular contributions to members of the Assembly, Senate, Governor, and both the NJ State Republican and Democratic parties.[51] Donations range from $60 to an individual to $17,500 to the NJ Democratic Assembly Campaign Committee.[52] In total, NJHA spent almost $700,000 during this time.[53] This does not include any political contributions made by individual hospital executives or hospitals under separate cover.

HPAE will reliably expect well-financed opposition to any staffing legislative push, but the facts will bear us out: fewer patients per nurse will make for safer and better outcomes for New Jerseyans. The State's citizenry and healthcare workforce deserve to have the focus placed on safety for all with humane working conditions that will ensure better patient outcomes and keep nurses at the bedside.

"I am disgusted and sickened by how obvious the differences are when working on units that make money for the hospital (PACU, SICU, etc) versus units that don't make as much money for the hospital (ED). Administration should be ashamed of themselves … The ED had patients lying on the waiting room floor because there were no beds in the hospital … It's all about the money. No one cares about us or the patient."[54]

Department of Health Enforcement Needed

Enforcement of any new staffing ratios will fall under the aegis of New Jersey's Department of Health (NJ DOH). The few current staffing ratios are governed under N.J.A.C. 8:43G, the New Jersey Hospital Licensing Standards. It is incumbent on NJ DOH to make sure the regulations for staffing are followed. This will require a strong, well-funded NJ DOH to hire and maintain a workforce to respond to complaints, conduct inspections, and follow up on understaffing violations. HPAE recommends the following for proper oversight and enforcement:

- The reinstatement of regular hospital inspections and immediate, thorough complaint inspections by the New Jersey Department of Health (NJ DOH). This requires:
  - Increased NJ DOH staff for inspections
  - The right of hospital staff to accompany inspectors, and the right for consumers or staff to receive all information related to the complaint
  - Posting complaint and inspection results on the NJ DOH website

"Our labor nurses, it is unbelievable the amount of patients they'll have at one time. I mean, you have babies that deliver in the bed without a person in the room. The father comes out and says, "I can see the head." Pre-term babies! Just people literally running from room to room, a physician that can't even make it from room to room, let alone the nurse. You have a nurse that's got a patient hemorrhaging and she's still got five other patients."[55]

HPAE has hundreds, if not thousands, of Notice of Unsafe Staffing forms, filed by our members each time a hospital unit falls short on meeting its current staffing obligations. The hospitals do not willingly meet the current staffing requirements, despite what is reported to the state. New Jersey needs more comprehensive legislation so nurses will have legal recourse in the form of NJ DOH oversight and inspections.

Conclusion: Staff Ratios Work

California has legislation requiring increased nurse staffing levels that has created more reasonable workloads for nurses in California hospitals. This has led to fewer patient deaths and higher levels of job satisfaction than in other states without mandated staffing ratios[56] Hospital nurse staffing ratios mandated in California are associated with lower mortality and nurse outcomes predictive of better nurse retention in California.[57] Mandated staffing ratios have been in effect in California for 20 years, saving countless lives.

By making a safer work environment, California's staffing mandate has saved hospitals money by diminishing clinical disruption brought on by constant turnover.[58] Hospital staffing remains stable even during economic downturns, maintaining patient safety – hospital staffing in California remained largely unaffected during the Great Recession due to mandated ratios, while staffing in states without ratios declined further.[58]

CODE RED UNDERSTAFFED. OVERWORKED. UNSAFE FOR EVERYONE.

A recent Harris poll showed 90% of the public surveyed favored requiring safe nurse staffing standards in both hospitals and nursing homes.[65] We have experienced the worst pandemic of our lives for the past three years. Our healthcare workers were overworked and burnt out before the pandemic. They risked their lives and families' lives to help us; many of them died. They became our healthcare heroes. Please, it's time to listen to nurses who are asking for standards so that they can do the job they were trained to do – save lives.

Registered Nurses are asking elected officials to step in and act: pass a law now to improve and update New Jersey's safeguards for nurse staffing in hospitals. Assure nurses they can go to work each day, knowing they will have the resources to provide the highest quality of care to their patients. Give patients the assurance the price of their safety is not measured against the amount of profit a hospital makes by keeping lower staff levels. As noted in the President's message- the solution to this crisis is clear… it is only the political will that is in doubt.

Safe Staffing in the News

Notes & Sources

1. Anonymous quote from 2020 statewide survey.
2. Vivek H. Murthy. "Addressing Health Worker Burnout: The U.S. Surgeon General's Advisory on Building a Thriving Health Workforce." 9 May 2022, www.hhs.gov/sites/default/files/health-worker-wellbeing-advisory.pdf
3. Martsolf, Grant et al. "Examining the Value of Nurse Staffing: An Assessment of Quality and Patient Care Costs." *Medical Care* 52(11), 2014.
4. Acuity is defined as the severity of a hospitalized patient's illness and the level of attention or service he or she will need from professional staff.
5. Anonymous HPAE member quote. All nurse statements remain anonymous to protect workers.
6. Symplr. "Nurse-to-Patient Ratios for Patient Safety and Quality Care." 2 December 2022, https://www.symplr.com/blog/nurse-patient-ratios-for-patient-safety-quality
7. Anonymous HPAE member quote. All nurse statements remain anonymous to protect workers.
8. Aiken, Linda H., et.al, "Nurse Staffing and Education and Hospital Mortality," The Lancet, February 2014
9. Kane, Robert L. et.al. "Nurse Staffing and Quality of Patient Care," AHRQ Publication No. 07-E005, Evidence Report/Technology Assessment Number 151, March 2007)
10. Joint Commission on the Accreditation of Hospital Organizations, 2002.
11. Lasater, Karen B. et.al. "Evaluation of hospital nurse-to-patient staffing ratios and sepsis bundles on patient outcomes." American Journal of Infection Control 49(2021)869-873.
12. Aiken, Linda H. "Testimony at New York Joint Legislative Budget Hearing: Research Shows New York State's Nurse Staffing Legislation Predicted to save Lives and Money." February 25, 2021. And: Lasater, Karen B. et.al. "Is Hospital Nurse Staffing Legislation in the Public's Interest? An Observational Study in New York State." Medical Care. Volume 59, Number 5, May 2021.
13. Leape, Lucian, et.al. "System analysis of adverse drug events." Journal of the American Medical Association, 274(1): 35-43.
14. Stone, Patricia W. et.al., "Nurse Working Conditions and Patient Safety Outcomes." Medical Care, Volume 45, Number 6, June 2007.
15. Dall T., Chen Y., Seifert R., Maddox P. & Hogan P. "The economic value of professional nursing." Medical Care 47, 97–103, 2009.
16. Dierkes, Andrew, et.al. The impact of California's staffing mandate and the economic recession on registered nurse staffing levels: A longitudinal analysis." Nurse Outlook 70 (2022) 219-227.
17. Leigh, J. Paul, et.al. "California's nurse-to-patient ratio law and occupational injury."Int Arch Occup Environ Health. 2015 May; 88(4): 477-485.
18. Unruh, Lynn & Asi, Yara. "Determinants of Workplace Injuries and Violence Among Newly Licensed RNs." Workplace Health & Safety, October 2018, Volume 66, No. 10, 482-492.; Roche, Michael, et.al. "Violence Toward Nurses, the Work Environment, and Patient Outcomes." Journal of Nursing Scholarship, 2010, 421, 13-22.; Shields, Margot & Wilkins, Kathryn. "Factors related to on-the-job abuse of nurses by patients." Component of Statistics Canada Catalogue no. 82-003-X Health Reports, Volume 20, no. 2, June 2009.
19. Anonymous HPAE member quote. All nurse statements remain anonymous to protect workers.
20. Davis, Matthew, MPH. et.al. "Association of US Nurse and Physician Occupation With Risk of Suicide." JAMA Psychiatry, 2021:78(6);651-658.

21. Anonymous HPAE member quote. All nurse statements remain anonymous to protect workers.

22. Robbins, Rebecca, et.al. "How a Sprawling Hospital Chain Ignited Its Own Staffing Crisis." The New York Times, 15 December 2022; and also, Rust, Heather. "Hospitals Are Using the Nursing Shortage to Stiff Health Care Workers." JACOBIN, 5 December 2021.

23. Aiken, Linda H. et.al. "A repeated cross-sectional study of nurses immediately before and during the Covid-19 pandemic: Implications for action." Nursing Outlook, Nurse Outlook 000 (2022) 1-10.

24. This profit for NJ hospitals, or "excess of revenue over expenses," is visible in the annual audited financial statements for each hospital corporation or stand-alone hospital in the state.

25. Anonymous HPAE member quote. All nurse statements remain anonymous to protect workers.

26. Anonymous HPAE member quote. All nurse statements remain anonymous to protect workers.

27. Lasater, Karen B. et.al. "Is Hospital Nurse Staffing Legislation in the Public's Interest? An Observational Study in New York State." Medical Care. Volume 59, Number 5, May 2021.

28. Aiken, Linda H. "Testimony at New York Joint Legislative Budget Hearing: Research Shows New York State's Nurse Staffing Legislation Predicted to save Lives and Money." February 25, 2021.
And: Lasater, Karen B. et.al. "Is Hospital Nurse Staffing Legislation in the Public's Interest? An Observational Study in New York State." Medical Care. Volume 59, Number 5, May 2021.

29. Dall T., Chen Y., Seifert R., Maddox P. & Hogan P. "The economic value of professional nursing." Medical Care 47, 97–103, 2009.

30. Lasater, Karen B. et.al. "Chronic hospital nurse understaffing meets COVID-19: an observational study." Center for Health Outcomes and Policy Research, School of Nursing, University of Pennsylvania, 18 August 2020.

31. *Supra.*

32. Anonymous HPAE member quote. All nurse statements remain anonymous to protect workers.

33. KaufmanHall. "The Financial Effects of Hospital Workforce Dislocation." May 2022, https://www.kaufmanhall.com/insights/research-report/special-workforce-edition-national-hospital-flash-report?utm_source=agcy&utm_campaign=nhfr-workforce-report&utm_medium=pr&utm_term=220511

34. *Supra.*

35. Mensik, Hailey. "Hospital labor expenses up 37% from pre-pandemic levels in March." HealthcareDive, 12 May 2022, https://www.healthcaredive.com/news/kaufman-hall-hospital-labor-costs-travel-nurse-pay/623655/

36. Anonymous HPAE member quote. All nurse statements remain anonymous to protect workers.

37. Livio, Susan K. "N.J. leads nation for number of hospitals penalized for high readmissions." NJ Advance Media for NJ.com, 4 August 2015, https://www.nj.com/politics/2015/08/nearly_every_nj_hospital_to_be_penalized_for_high.html; and New Jersey 101.5, "Medicare cuts estimated $23M in New Jersey hospital funding." 5 August 2015.

38. Kaiser Health News CMS database, accessed 28 February 2022, https://khn.org/news/hospital-penalties/

39. Vahey, Doris C. et al. "Nurse Burnout and Patient Satisfaction." *Medical Care*, Volume 42, Number 2 Supplemental , February 2004, pp. 1157-1166.

40. Kutney-Lee, Ann et al. "Nursing: A Key to Patient Satisfaction." *Health Affairs*, July/August 2009, vol. 28, no. 4 669-677, http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2718727/

41. Anonymous HPAE member quote. All nurse statements remain anonymous to protect workers.

42. Anonymous HPAE member quote. All nurse statements remain anonymous to protect workers.

43. Leigh, J. Paul, et.al. "California's nurse-to-patient ratio law and occupational injury."Int Arch Occup Environ Health. 2015 May; 88(4): 477-485.

44. *Supra.*

45. Gunja, Muntra Z., et.al. "U.S. Health Care from a Global Perspective, 2022: Accelerating Spending, Worsening Outcomes." Commonwealth Fund, Issue Briefs, January 31, 2023. https://www.commonwealthfund.org/publications/issue-briefs/2023/jan/us-health-care-global-perspective-2022

46. *Supra.*

47. *Supra.*

48. Anonymous HPAE member quote. All nurse statements remain anonymous to protect workers.

49. Aiken, Linda H. and Claire M. Fagin. "Medicare can help fix the nurse shortage in hospitals." STAT, 8 February 2022, https://www.statnews.com/2022/02/08/medicare-can-help-fix-the-nurse-shortage-in-hospitals/ ; and Massachusetts Nurses Association. "Opponents of Q1 and Safe Patient Limits Spend Record Amount to Scare, Confuse Voters. 26 February 2019, https://www.massnurses.org/health-and-safety/articles/union-advocacy/p/openItem/11253

50. Massachusetts Nurses Association. "Opponents of Q1 and Safe Patient Limits Spend Record Amount to Scare, Confuse Voters. 26 February 2019, https://www.massnurses.org/health-and-safety/articles/union-advocacy/p/openItem/11253

51. Open Secrets Donor Lookup, https://www.opensecrets.org/donor-lookup

52. *Supra.*

53. *Supra.*

54. Anonymous HPAE member quote. All nurse statements remain anonymous to protect workers.

55. Anonymous quote from 2020 statewide survey.

56. Health Care Innovations Exchange, https://www.ahrq.gov/innovations/index.html .

57. Aiken, Linda H. et.al. "Implications of the California Nurse Staffing Mandate for Other States." Health Services Research, 2010 Aug; 45(4): 904-921.

58. National Nurses United. "Ratios: Learning from the California experience." https://www.nationalnursesunited.org/ratios-california-experience .

59. Dierkes, Andrew, et.al. The impact of California's staffing mandate and the economic recession on registered nurse staffing levels: A longitudinal analysis." Nurse Outlook 70 (2022) 219-227.

60. NursesEverywhere. "Expand nursing care survey: A research brief, 3 August 2021, https://www.nurseseverywhere.com/pages/policy

HPAE POSITION PAPER – MARCH 2023

Health Professionals
and Allied Employees
HPAE/AFT/AFL-CIO

HPAE
Putting care first

110 Kinderkamack Road
Emerson, NJ 07630
TEL 201-262-5005
FAX 201-262-4335
www.hpae.org
www.facebook.com/hpae.aft

[Whereupon, at 10:30 a.m., the hearing was adjourned.]

○