

Deadly Shame

Redressing the Devaluation of Registered Nurse Labor Through Pandemic Equity





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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 Filipino 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 Filipino⁵ 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.



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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 home-made 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 Association³⁰ — 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 intensity⁴⁵ 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




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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.



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 non-union 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 hour⁸⁵ 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

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.

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.



Unionization can significantly diminish gender and racial wage gaps.

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 contact 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

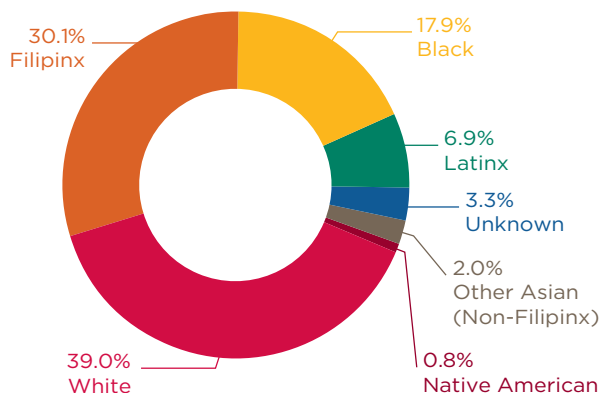
Similarly, the United States is experiencing a high percentage of health care workers among those testing positive for Covid-19. Based on reports from the first three months of the pandemic, the CDC found that, among a sample of 9,282 persons who tested positive and whose occupation was known, 19 percent 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 Filipinx¹¹⁶ 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

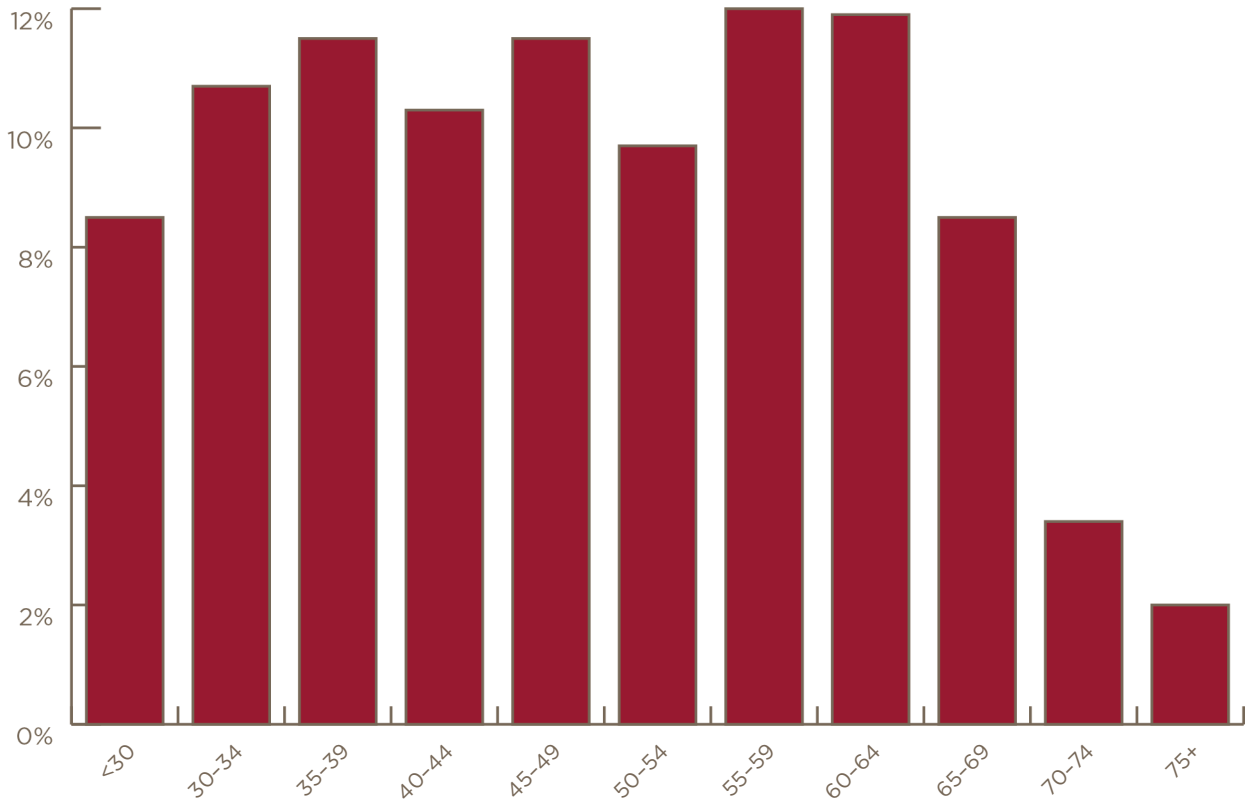
Contracting Covid-19 may result in life-threatening conditions including acute respiratory distress syndrome (ARDS); acute kidney injury; cardiac injury; stroke, blood clots, and embolisms; neurological involvement including dizziness and loss of the senses of smell and taste; and liver dysfunction.¹²⁵ 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 syndrome¹³⁸ 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 adults¹⁴³ 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 betrayal¹⁶⁰ 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 resentment¹⁶⁷ 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 out²¹⁰ and have fired workers for doing so.²¹¹ Employers have gone so far as to prohibit nurses from bringing in their own respirators²¹² 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, 2020, 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 studies²³⁰ and a letter from 239 scientists²³¹ 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 manufacture 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 <ul style="list-style-type: none">• Hospital management• CDC• OSHA “failing to prevent” ²⁶⁶ <ul style="list-style-type: none">• OSHA
“acts that transgress”	“acts that transgress” <ul style="list-style-type: none">• 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” <ul style="list-style-type: none">• 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” <ul style="list-style-type: none">• 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” <ul style="list-style-type: none">• 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 life-saving resources (ventilators, blood products, specific medications) and reallocate as required to meet demand according to state/regional consensus recommendations
- » Restrict medications to select indications³⁰⁴

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”	<p>“perpetrating”</p> <ul style="list-style-type: none"> • Hospital management • The Trump administration • Congress • State government leaders <p>“failing to prevent”</p> <ul style="list-style-type: none"> • Congress • State government leaders
“acts that transgress”	<p>“acts that transgress”</p> <ul style="list-style-type: none"> • 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”	<p>“beliefs”</p> <ul style="list-style-type: none"> • People’s health and lives should have priority over making a profit <p>“expectations”</p> <ul style="list-style-type: none"> • Elected officials have an obligation to provide leadership in crisis situations
“in a high-stakes environment”	<p>“high-stakes environment”</p> <ul style="list-style-type: none"> • 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 front-line caregiver³¹⁷ was associated with higher rates and intensity³¹⁸ 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)	<ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> ◦ 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]³²⁷	<ul style="list-style-type: none"> • A nurse working without appropriate health and safety protections (e.g., insufficient PPE or poor patient screening protocols) because: <ul style="list-style-type: none"> ◦ 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	<ul style="list-style-type: none"> • 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)	<ul style="list-style-type: none"> • 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.	<ul style="list-style-type: none"> • 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 asymptotically. 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 caregiver³⁶⁷ were all associated with higher rates and intensity³⁶⁸ 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 difficulty [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.

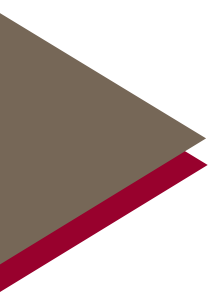


When weighing potential pandemic mitigation policies, nurses must collectively demand that any additional pay or benefit provided during the pandemic never become a substitute for providing nurses optimal personal protective equipment or to protect nurses' health and safety.

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 efficient. 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



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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.

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



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.

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 contact 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 policies 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 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, blood-borne 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.

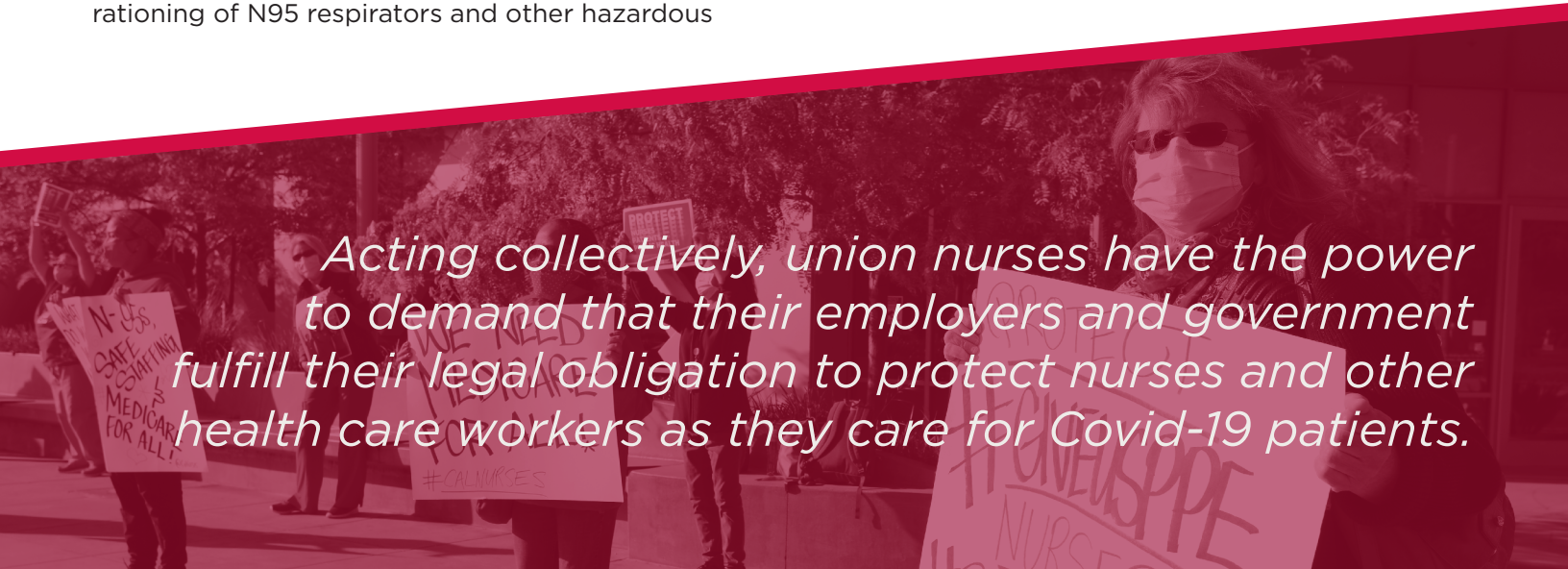
COLLECTIVE ACTION NECESSARY TO MAKE CHANGE

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.



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.

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

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- 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).
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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>.
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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."

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- and has not issued citations as a matter of existing policy/practice in such cases.
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