Memorandum: Immediate Action Needed to Protect Health Care Workers and First Responders on the Front Lines of the COVID-19 Response

Conditions in Health Care Facilities are Dire and Front Line Health Care Workers and Responders are in Immediate Danger

Just weeks into the first wave of the disease outbreak, hospitals in New York and other hard hit areas already are overwhelmed with a surge of sick patients. Critical personal protective equipment (PPE) is not being provided to nurses, doctors and other health care workers evaluating and treating those with suspected and confirmed COVID-19 disease. Many facilities are short of needed supplies, while others are holding back and rationing equipment, concerned that supplies will not be available in the future.

Failing to protect these workers has already resulted in tens of thousands of health care workers and emergency responders becoming infected—many are seriously ill and thousands have died. One recent report documents that 20% of confirmed COVID-19 cases are among health care workers.[1]

The Trump administration has made the situation much worse. The administration has refused to centralize the supply and distribution of PPE and medical equipment to allocate it to the most needed areas, leaving individual states, localities and health care facilities to fend on their own. There is no focus on ensuring access to the right levels of protections that keep workers safe and able to care for patients in the future.

Weakened Centers for Disease Control and Prevention (CDC) guidelines have given license to health departments and health care facilities to roll back necessary levels of protection to unacceptable levels for health care workers taking care of COVID-19 patients. Hospitals are implementing the lowest level of protection and providing no or inadequate PPE, rather than limiting exposures and providing the best protection possible under the current circumstances. Employers are citing CDC guidelines to claim that workers are being protected; however, these claims are not true and the guidelines do not represent the most current scientific evidence regarding transmission of the virus. Rather than protect health care workers, the CDC guidelines have directly resulted in:

- Health care workers directly caring for COVID-19 patients being given only surgical masks, which don't protect against the virus, instead of N95 or other respirators that provide protection from airborne transmissible viruses.
- Health care workers told to reuse the same single use N95 respirator and other equipment for days or a week without any effective training or procedures to prevent contamination.
- Hospitals locking up supplies of equipment they do have, refusing to provide N95s and other respirators to health care workers exposed to infected patients.
- Nurses resorting to bringing in and using their own equipment to protect themselves.
- Health care workers facing discipline, threats of job loss or termination when raising concerns about safety conditions or wearing their own protections when it has not been supplied by management.
- Hospitals calling for homemade masks, despite rigorous review by NIOSH and FDA that has kept respiratory protection legitimate and effective throughout the years.
- Authorities continuing to ignore a growing body of evidence on airborne transmission of SARS CoV-2, the virus responsible for COVID-19, as well as established scientific evidence of airborne transmission of SARS-CoV-1 and MERS.[2,3]

Federal Occupational Safety and Health Administration (OSHA), the agency responsible for protecting workers' safety and health, is missing in action. The Trump administration has refused to issue an emergency standard to protect front line and essential workers from COVID-19. Moreover, OSHA is not conducting inspections or enforcing its existing standards on PPE, respiratory protection, sanitation and general duty requirements to ensure even a basic level of protection. Hospitals that are fighting against an emergency standard and stronger safety guidelines currently are free to adopt any practices and procedures as they see fit, leaving workers without any agency oversight in the provision of needed safety protections from COVID-19 infection.

If the United States does not act quickly and change course, the situation will become even more dire. Tens of thousands of health care workers will become infected and get sick, and many will continue to die. Our health care staff will be decimated, unable to treat and care for sick patients, leading to more deaths. Our health care system will face catastrophic collapse, just as the pandemic is surging.

Immediate Actions Needed to Protect Health Care Workers:

1) President Trump must act immediately to implement the Defense Production Act to federalize and centralize the allocation, distribution and manufacture of protective equipment and medical supplies.

- Expand and strengthen existing executive orders to give authority to and direct FEMA, working with HHS and DOD, to federalize and centralize the purchasing, allocation and distribution of PPE for the COVID-19 response.
- Work more efficiently through states and cities and involve, communicate and coordinate with hospitals, health care facilities and unions to assess and determine needs.
- Prioritize the transparent distribution of equipment to locations and facilities where supplies are limited and cases are surging.
- Expand distribution/redistribution of re-useable equipment, such as powered air purifying respirators (PAPRs) and elastomeric respirators. This equipment provides better protection and is more cost-efficient than disposable filtering face piece respirators such as N95s. This equipment can be easily disinfected and can be reused and redistributed to different locations as the pandemic spreads and surges throughout the country.
- Prohibit price gouging of PPE and other needed supplies and equipment by manufacturers and distributors so that states and other purchasers are not competing against each other on equipment pricing.

2) Expand supply of personal protective equipment.

- Immediately implement the Defense Production Act to direct and prioritize the production of needed PPE and other supplies, with prioritizing the production of N95 and reusable respirators that provide greater protection. Recent commitments to import more N95 respirators are completely inadequate to address the full scale of needs.
- Expand production of equipment, including enhanced production of reusable equipment such as PAPRs and elastomeric respirators by converting existing facilities and building new plants. Parts and processes for producing PAPRs and elastomeric respirators are available from domestic supply chains and facilities.

- Continue to seek PPE from other employers and local sources and redistribute to where it is needed most. Solicit reusable respirators, as well as the corresponding filters, cartridges and batteries, as part of the collection. Most collections efforts to date have not sought this important source and type of equipment.

3) Expand the use of available respiratory protection.

- Hospitals and other health care facilities stockpiling PPE must immediately release it for use by health care workers exposed to COVID-19.
- In facilities where PPE is in short supply, facilities must implement optimization strategies that focus on optimizing the protection of health care workers while conserving supplies, not only on rationing equipment.
- Immediately expand the use of PAPRs and elastomeric respirators with priority for those conducting aerosol generating procedures.[4]
- Reuse of N95 respirators must only be a last resort—in crisis conditions after all efforts to acquire sufficient supplies of equipment and institute other controls have been made and are not successful. Any reuse of N95 respirators must follow the NIOSH guidelines on extended use and reuse and ensure that integrity of the equipment is maintained.[5] Under these conditions, employers must provide training on extended use and reuse of respirators, safe storage and donning and doffing procedures that will not contaminate reused PPE; and must provide training on recognizing when to discard and not reuse PPE that is contaminated, soiled, damaged or difficult to breathe through. Reuse must be performed in combination with optimization procedures and not instead of them.

4) Provide immediate testing to health care workers.

- Increase COVID-19 test distribution to hospitals and health care facilities, including immediate deployment of the new rapid COVID-19 test to these facilities.
- Prioritize testing at facilities in hotspot geographic locations.
- Prioritize health care workers (exposed, asymptomatic and symptomatic) and suspected patient cases for testing.
- Testing for health care workers must be ongoing and systematic to ensure infected, asymptomatic health care workers can be quarantined and uninfected health care workers can remain on the job.

5) Issue new CDC guidelines that recognize airborne transmission of COVID-19.

At the beginning of March, the CDC rolled back recommended infection control guidelines that would have protected workers taking care of patients with COVID-19. The agency weakened the protection factor of recommended respiratory protection for health care providers caring for patients with suspected or confirmed COVID-19 from N95 respirators to surgical masks, which provide no respiratory protection at all for the wearer. The agency further weakened the protection factor of recommended respiratory protection for patient care procedures that cause viral particles to aerosolize in the air, such as intubations and nebulizer treatments, saying that N95s—the most basic of respirators—are adequate, rather than maintaining the recommendation for more protective PAPRs.[6]

The CDC also weakened provisions for isolating COVID-19 patients, advised that homemade face masks could be used in place of respirators as a last resort option and now allows: 1) health care workers who are exposed to COVID-19 patients but not provided adequate PPE to

remain on the job,[7] and 2) those who have been infected and without symptoms for three days to return to the job with no requirement for testing, putting other health care workers and patients at risk of infection.[8]

The CDC must issue new guidelines that require employers to use all feasible means to limit health care worker exposure to COVID-19. The revised guidelines must:

- Include and reflect the most updated science and research that show asymptomatic transmission of the SARS-CoV-2 virus is causing significant numbers of infections[9,10,11,12] and that airborne transmission of small particles is a major source of transmission, particularly at close range.[13,14] The guidelines must protect all health care workers and patients against exposure from all routes of transmission—contact, droplet, airborne and aerosol.
- Prioritize control measures to limit the number of health care workers and patients exposed to COVID-19 by implementing engineering, work practice and administrative controls, including isolating suspected and confirmed patients being evaluated and treated; increasing the number of negative pressure rooms/sections at hospitals; and creating dedicated COVID-19 hospitals and wards within hospitals.
- Require that hospitals and other health care employers make every effort to secure sufficient amounts of equipment, including N95s and other respirators, to protect all health care workers evaluating, treating and caring for all suspected and confirmed COVID-19 patients, and to ensure that this equipment is accessible and used.
- Prioritize the greatest levels of respiratory protection for health care workers and emergency responders with the greatest exposures to suspected and confirmed COVID-19 patients. Health care workers conducting aerosol generating procedures should be provided the highest level of respiratory protection available, starting with PAPRs, another reusable respirator such as half-mask or full face piece elastomeric respirators equipped with a particulate filtering cartridges, and, lastly, N95 respirators.
- Eliminate the recommendation for health care workers using homemade face masks or bandanas under crisis conditions. Scientific studies have demonstrated that these devices do not protect health care workers from exposure and instead, can pose increased risk of infection.[15] The guidance should warn against the use of such devices by health care workers.
- Revise guidelines on screening, monitoring and quarantining for health care workers exposed to suspected and confirmed COVID-19 patients in the absence of adequate PPE and do not limit these protections to those health care workers exhibiting symptoms of possible COVID-19 infection. Revise guidelines for return to work by health care workers with suspected and confirmed COVID-19 infections to ensure that they are not infected before they return to work.

6) Require recording and immediate reporting of all confirmed and suspected health care worker COVID-19 infections to local and state health departments for immediate transmittal to CDC.

- Include information on job title, workplace exposure and PPE use.
- State and local health departments should provide regular reports to the public of health care worker infections, quarantines, hospitalizations and deaths in their jurisdictions.
- CDC must collect and analyze the information, make it publicly available, investigate as appropriate, and update guidance to protect health care workers based upon the data and analyses.

7) Protect health care workers and all other essential workers from retaliation for taking safety actions to be protected from COVID-19 on the job.

- The federal government and state governments must issue emergency orders or interpretations of existing laws to make it illegal for employers or any party to retaliate against or fire frontline and other essential workers for ensuring their right to be provided and utilize safety protections from COVID-19.
- This includes wearing their own PPE when they are not provided adequate protection by employers or raising safety and health concerns with their employer, government agencies, the media, and the public about the lack of equipment, unsafe procedures and practices and unsafe staffing.

8) Issue an OSHA emergency standard to protect frontline health care workers and essential workers from COVID-19 and enforce OSHA standards.

- Federal OSHA must act immediately to issue an emergency temporary standard to protect health care workers, emergency responders and other essential workers at risk of infection from exposure to this virus such as food supply workers, transportation workers, correction officers and many others.
- State OSHA plans must immediately adopt any federal emergency standard, and take action to issue their own standards if federal OSHA fails to act.
- Federal OSHA and state OSHA plans must conduct oversight and inspections of health care facilities and enforce this new emergency standard, existing standards for respiratory protection, other PPE, and sanitation, and its general duty requirement to protect workers against recognized hazards.
- Federal OSHA and state OSHA plans must ensure that inspectors are equipped with their own PPE and training about their own protections from COVID-19 during workplace inspections.
- Federal OSHA must strengthen injury and illness recording and reporting for COVID-19, including the recording of worker exposures to COVID-19, like is required for needlestick injuries.
- Federal OSHA and state OSHA plans must issue directives making clear that it is illegal for employers to retaliate against frontline and other essential workers raising safety and health concerns or wearing protective equipment, must be proactive about enforcing under this directive, and must aggressively enforce anti-retaliation protections under section 11(c) of the OSH Act and other applicable whistleblower laws.

[1] Ohio Department of Health. COVID-19 Metrics. Updated April 6, 2020. https://coronavirus.ohio.gov/static/slides/Press-Conference-Slides.pdf.

[2] van Doremalen, N., Bushmaker, T., Morris, D., Holbrook, M., Gamble, A., Williamson, B., ... & Lloyd-Smith, J. (2020). Aerosol and surface stability of HCoV-19 (SARS-CoV-2) compared to SARS-CoV-1. medRxiv. https://www.medrxiv.org/content/10.1101/2020.03.09.20033217v2

[3] Joshua L Santarpia, Danielle N Rivera, Vicki Herrera, M. Jane Morwitzer, Hannah Creager, George W. Santarpia, Kevin K Crown, David Brett-Major, Elizabeth Schnaubelt, M. Jana Broadhurst, James V. Lawler, St. Patrick Reid, John J. Lowe Transmission Potential of SARS-CoV-2 in Viral Shedding Observed at the University of Nebraska Medical Center https://www.medrxiv.org/content/10.1101/2020.03.23.20039446v2

[4] U.S. Department of Labor, Occupational Safety and Health Administration. Enforcement Guidance for Respiratory Protection and the N95 Shortage Due to the Coronavirus Disease 2019 (COVID-19) Pandemic. https://www.osha.gov/memos/2020-04-03/enforcement-guidance-respiratory-protection-and-n95-shortage-due-coronavirus.

[5] NIOSH/CDC, Recommended Guidance for Extended Use and Limited Reuse of N95 Filtering Facepiece Respirators in Healthcare Settings. https://www.cdc.gov/niosh/topics/hcwcontrols/recommendedguidanceextuse.html. Accessed March 30, 2020.
[6] CDC, Interim Infection Prevention and Control Recommendations for Patients with Suspected or Confirmed Coronavirus Disease 2019 (COVID-19) in Healthcare Settings, Updated March 10, 2020. https://www.cdc.gov/coronavirus/2019-ncov/infection-control/control-recommendations.html, Accessed March 30, 2020.

[7] CDC, Interim U.S. Guidance for Risk Assessment and Public Health Management of Healthcare Personnel with Potential Exposure in a Healthcare Setting to Patients with Coronavirus Disease (COVID-19), Updated March 7, 2020. https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-risk-assesment-hcp.html. Accessed March 30, 2020.

[8] CDC, Criteria for Return to Work for Healthcare Personnel with Confirmed or Suspected COVID-19 (Interim Guidance). March 16, 2020. https://www.cdc.gov/coronavirus/2019-ncov/healthcare-facilities/hcp-return-work.html. Accessed March 30, 2020.

[9] Wei WE, Li Z, Chiew CJ, Yong SE, Toh MP, Lee VJ. Presymptomatic Transmission of SARS-CoV-2 — Singapore, January 23–March 16, 2020. MMWR Morb Mortal Wkly Rep. ePub: 1 April 2020. DOI: http://dx.doi.org/10.15585/mmwr.mm6914e1

[10] Tapiwa Ganyani, Cecile Kremer, Dongxuan Chen, Andrea Torneri, Christel Faes, Jacco Wallinga, Niel Hens. Estimating the generation interval for COVID-19 based on symptom onset data. medRxiv preprint doi: https://doi.org/10.1101/2020.03.05.20031815

[11] Kimball A, Hatfield KM, Arons M, et al. Asymptomatic and Presymptomatic SARS-CoV-2 Infections in Residents of a Long-Term Care Skilled Nursing Facility — King County, Washington, March 2020. MMWR Morb Mortal Wkly Rep. ePub: 27 March 2020. DOI: http://dx.doi.org/10.15585/mmwr.mm6913e1

[12] Mizumoto Kenji, Kagaya Katsushi, Zarebski Alexander, Chowell Gerardo. Estimating the asymptomatic proportion of coronavirus disease 2019 (COVID-19) cases on board the Diamond Princess cruise ship, Yokohama, Japan, 2020. Euro Surveill. 2020;25(10):pii=2000180. https://doi.org/10.2807/1560-7917.ES.2020.25.10.2000180

[13] van Doremalen, N., et al. (2020)

[14] Joshua L Santarpia, J L, et al. (2020)

[15] MacIntyre, C. R., Seale, H., Dung, T. C., Hien, N. T., Nga, P. T., Chughtai, A. A., Rahman, B., Dwyer, D. E., & Wang, Q. (2015). A cluster randomised trial of cloth masks compared with medical masks in healthcare workers. *BMJ open*, *5*(4), e006577. https://doi.org/10.1136/bmjopen-2014-006577