VIEWPOINT

Older Clinicians and the Surge in Novel Coronavirus Disease 2019 (COVID-19)

Peter I. Buerhaus, PhD, RN

Center for Interdisciplinary Health Workforce Studies, Montana State University College of Nursing, Bozeman.

David I. Auerbach, PhD

Center for Interdisciplinary Health Workforce Studies, Montana State University College of Nursing, Bozeman.

Douglas O. Staiger, PhD

Department of Economics, Dartmouth College, Hanover, New Hampshire; and National Bureau of Economic Research, Cambridge, Massachusetts.



Supplemental content

The recent report of 2 critically ill emergency physicians infected by the novel coronavirus disease 2019 (COVID-19) is a sobering reminder of the vulnerability of the nation's health care workforce. While all members of the health care workforce are vital as the health care system faces perhaps its greatest challenge in memory, physicians and nurses are the caregivers who typically have the most direct contact with patients, whether through advising, triaging, or treating those who require hospitalization.

Across the nation, people, and particularly those older than 60 years, are being asked to stay at home and practice social distancing to slow the spread of infection and help avoid overwhelming hospitals that are expected to encounter shortages of needed equipment and personnel. Recent estimates from the Centers for Disease Control and Prevention indicate that the rates of hospitalizations, intensive care unit admissions, and mortality among reported COVID-19 cases in the United States are substantially higher among patients older than 45 years compared with younger patients, with case-fatality rates exceeding 1.4% among patients aged 55 to 64 years and exceeding 2.7% among those aged 65 to 74 years.²

There are large numbers of older nurses and physicians, who, if they were not in the health care workforce, would be staying at home to minimize their risk of exposure. Instead, many older clinicians are reporting for work every day. These clinicians have decades of

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experience, knowledge, and decision-making skills that are crucially important to guide the wise use of scarce resources when treating patients, protecting coworkers, and ensuring the capabilities of health care delivery organizations. In this Viewpoint, to better understand the prevalence of older clinicians in the workforce, we briefly summarize the age distribution of physicians and nurses by employment setting and for the largest metropolitan areas in the United States, including areas particularly affected by COVID-19, including Seattle, Washington, and New York City.

A substantial portion of hospital-based registered nurses, non-hospital-based registered nurses, and phy-

sicians are 55 years of age or older (**Figure**). Among the nation's nearly 2 million registered nurses employed in hospitals, an estimated 370 000 (19%) are aged 55 to 64 years, and an estimated 55 000 (3%) are aged 65 years or older and thus, at even greater risk of complications and mortality from COVID-19. Of the approximately 1.2 million registered nurses employed outside of hospital settings, who could be called in to assist as hospital needs increase, even higher percentages are aged 55 to 64 years (24%) or aged 65 years or older (5%). The physician workforce is older still; of the approximately 1.2 million physicians in the United States, an estimated 230 000 (20%) are aged 55 to 64 years and an estimated 106 000 (9%) are aged 65 years or older.

As the effects of COVID-19 are currently strongly regional, it is also important to consider how the ages of the nursing and physician workforces vary across the United States. There are considerable differences, and some of the areas with the most registered nurses and physicians aged 55 and older are among the most severely affected by the virus. The 25 largest US metropolitan areas, ranked by the percentage of the registered nurses and physicians in the workforce aged 55 years and older, is shown in the eTable in the Supplement.

Among registered nurses, the 25 areas range from nearly one-third (31.7%) aged 55 years and older in Boston, Massachusetts, to less than 1 in 5 (19.3%) in Miami, Florida. The top 3 ranked areas, in terms of hav-

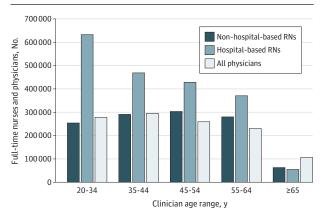
ing an older registered nurse workforce (including Camden, New Jersey, and East Long Island, New York), have had or are near sites of considerable COVID-19 infection (as of March 23, 2020). Regarding the physician workforce, there is even more variation between the area with the oldest physicians (Camden, New Jersey [38.9%]) and the youngest (Houston, Texas [19.4%]). Although areas with relatively older registered nurses do not necessarily have relatively older physicians,

Camden, New Jersey, Fort Lauderdale, Florida, and Orange County, California, are among the top 5 areas with the oldest registered nurse and physician workforces.

It is reassuring that large numbers of older nurses and physicians are caring for patients today. These clinicians have decades worth of knowledge, experience, and relationships with coworkers that will be needed now more than ever when large numbers of patients are hospitalized with COVID-19. These clinician leaders are an essential and vitally important component of many organizations, especially because many of these older clinicians have experience with disasters, triaging, decision making, and managing staff and resources under

Corresponding Author: Douglas O. Staiger, PhD, Department of Economics, Dartmouth College, Hanover, NH 03755 (doug.staiger@dartmouth.edu).

Figure. Estimated Number of Full-time Equivalent Registered Nurses (RNs) and Physicians by Age Group



Authors' analysis of data is sourced from the US Census Bureau American Community Survey 2014-2018, which reports pooled data representing a combined 5-in-100 national random sample of the US population (1% of the US population in each year). The sample includes all individuals who reported working with an occupation of physician or surgeon (N = 48 538) or registered nurse (including nurse anesthetists and nurse practitioners [N = 168 801]). All estimates were weighted by sampling weights provided by the American Community Survey and represent full-time equivalent clinicians.

times of great stress. Conversely, should these older nurses and physicians become infected and required to stay home, or if they become patients, the ramifications could be significant, not only in terms of the loss of their clinical expertise and presence when it is needed the most, but the loss of leadership, judgement, and maintaining morale.

Hospitals and other care delivery organizations, including state and local health departments, should carefully consider how best to protect and preserve their workforce, with careful consideration involving older physicians and nurses. Older clinicians are likely to have an even larger role in the months ahead as more regions address workforce shortages by requesting that retired physicians and nurses consider returning to the workforce during the COVID-19 outbreak, as has recently occurred in New York City, the state of Illinois, and Great Britain. 4-6 While hospitals and other organizations ramp up their preparations, this is the time to determine whether there may be different roles for older clinicians that will ensure they are able to contribute over the long-term course of the pandemic. This is not to suggest that these older nurses and physicians should necessarily be precluded from providing clinical care or should be isolated, but rather to consider if their direct clinician duties can be shifted to emphasize roles with less risk of exposure. These roles may include various activities, such as consulting with younger staff, advising on the use of resources, being readily available for clinical and organizational problem solving, helping clinicians and managers make tough decisions, talking with families of patients, advising managers and executives, being public spokespersons, and liaising with public and community health organizations. In addition, hospitals will want to prepare for the effect that a severe illness or death of a colleague will have on their staff in terms of morale.

As the public, government, and the health care workforce prepare for what could be extraordinarily challenging weeks and months ahead, thought should be given on how to wisely use all health care resources, including the nation's nurse and physician workforce—from students to the most seasoned.

ARTICLE INFORMATION

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REFERENCES

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1. Modern Healthcare. Two emergency physicians in critical condition after becoming infected with COVID-19. Published March 15, 2020. Accessed March

20, 2020. https://www.modernhealthcare.com/ providers/two-emergency-physicians-criticalcondition-after-becoming-infected-covid-19

- 2. Centers for Disease Control and Prevention; COVID-19 Response Team. Severe outcomes among patients with coronavirus disease 2019 (COVID-19)—United States, February 12-March 16, 2020. MMWR. 2020;69(12):343-346. doi:10.15585/mmwr.mm6912e2
- 3. Ruggles S, Flood S, Goeken R, et al. IPUMS USA: version 10.0 [data set]. IPUMS; 2020. doi:10.18128/D010.V10.0
- 4. WIFR TV. Pritzker asks retired physicians, doctors and nurses to come back to work during the COVID-19 outbreak. Posted March 21, 2020. Accessed March 23, 2020. https://www.wifr.com/

content/news/Pritzker-asks-retired-physicians-doctors-and-nurses-to-come-back-to-work-during-the-COVID-10-oubreak-568997121.html

- 5. Norman G. Fox News website. Britain asking 65 000 retired nurses and doctors to return to work to help fight coronavirus. Posted March 20, 2020. Accessed March 23, 2020. https://www.foxnews.com/world/britain-coronavirus-retired-nurses-doctors
- 6. Marsh J; New York Post. In one day, 1000 NYC doctors and nurses enlist to battle coronavirus. Posted March 21, 2020. Accessed March 23, 2020. https://nypost.com/2020/03/18/in-one-day-1000-nyc-doctors-and-nurses-enlist-to-battle-coronavirus/

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