

Medical News & Perspectives

Nursing Homes' Next Test—Vaccinating Workers Against COVID-19

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A key struggle in rolling out coronavirus disease 2019 (COVID-19) vaccines could be getting several million initial doses to the nation's massive and far-flung long-term care workforce.

Vaccinating those workers, who can unknowingly spread the virus to fragile residents, is considered an important step in controlling the pandemic. Long-term care facilities in the US have been ravaged by the virus, accounting for 8% of cases but 40% of deaths as of October 8, according to the Kaiser Family Foundation.

Early in the fall some experts in long-term care and immunization predicted significant hurdles in vaccinating long-term care workers. After all, staff turnover at nursing homes has been high for decades, and long-term care facilities typically possess fewer resources than hospitals for staff education about vaccine risks and benefits.

After months of shouldering personal protective equipment and testing shortages along with an enormous disease burden, the industry saw a ray of hope in mid-October. The Trump administration announced the new Pharmacy Partnership for Long-Term Care Program with pharmacy giants CVS and Walgreens to vaccinate long-term care facilities' residents and staff on site at no cost.

"This is really significant...because we've never really had [a] coordinated partnership between pharmacies and public health across all states," Claire Hannan, MPH, executive director of the Association of Immunization Managers, whose members lead state, local, and territorial immunization programs, said in an email.

"The only way to keep older adults healthy and safe in this pandemic is through a coordinated federal response," Katie Smith Sloan, president and chief executive officer of LeadingAge, which represents nonprofit nursing homes and other aging services, said in a statement. "The vaccine is still months away, so there is time to get this right."

Even with the federal effort, however, significant obstacles remain. Inadequate vaccine safety is a widespread concern, and the vaccines themselves pose some unique



logistical challenges. For example, the 2 leading candidates, both made with new gene-based messenger RNA (mRNA) technology, require ultracold storage.

Although CVS and Walgreens will maintain the cold chain for the vaccines they administer through the new partnership, long-term care facilities have to opt in to participate and choose a pharmacy to give vaccines on site. Facilities that don't participate may not have the equipment necessary to properly store vaccines.

Moreover, the pharmacy partnership program might not help to vaccinate long-term care workers during the first phase of vaccinations, as state plans may require. Some states' draft plans, completed around the time the program was announced, made long-term care workers a top priority and called for residents to be vaccinated later.

According to the Trump administration's announcement, the program will offer vaccinations to staff who weren't previously vaccinated in other settings such as satellite, temporary, or off-site clinics. A Centers for Disease Control and Prevention (CDC) document distributed to the industry acknowledged that staff might be eli-

gible for vaccination earlier than residents and strongly encouraged that staff be vaccinated "as soon as they are eligible."

Priority Status

In September, as states and local public health agencies crafted vaccine distribution plans based on a CDC playbook, the American Health Care Association and National Center for Assisted Living (AHCA/NCAL) issued a plea to the National Governors Association.

The group, which represents more than 14 000 nursing homes and assisted living communities, appealed to the governors to make nursing home residents and staff "the highest priority" for vaccines. Despite stringent measures that have been put in place to screen and test staff, the industry group said that "the asymptomatic and virulent nature of this virus makes it impossible to truly prevent entry into the building."

Days later, allocation recommendations from a National Academy of Sciences, Engineering, and Medicine (NASEM) committee put long-term care workers among the 5% of the US population that's first in line as part of a "jumpstart" phase 1a category

for a vaccine because of their high-risk occupations. The recommendations cite the high potential for these workers to spread the virus.

NASEM's recommendations serve as a guide; it's the CDC's Advisory Committee on Immunization Practices (ACIP) that traditionally recommends who should get vaccines. At a September meeting, however, ACIP members said they [won't issue](#) final recommendations until the US Food and Drug Administration approves a vaccine and they've reviewed efficacy and safety data from a phase 3 trial. State and local health departments are likely to follow ACIP's lead in finalizing their own distribution plans.

And until data are available on vaccine efficacy among different populations as well as how much vaccine will be available, it's difficult to know how the groups most at risk should be prioritized. For example, Paul Cieslak, MD, medical director for communicable diseases and immunizations for the Oregon Health Authority, said in an interview that if a vaccine turns out to be highly protective in older people, it might make more sense to put a higher priority on vaccinating nursing home residents.

For now, however, a CDC [model](#) has indicated that vaccinating nursing home staff rather than residents would be more effective at reducing SARS-CoV-2 infections and deaths. The NASEM recommendations put older adults living in congregate settings in phase 1b, just behind long-term care workers.

Logistical Hurdles

Nursing homes and long-term care facilities can receive COVID-19 vaccines through the federal government's public-private partnership, or they can use their current pharmacy contracts instead.

Either way, the ultracold storage requirements for the vaccines that are farthest along in clinical trials—one developed by Pfizer and BioNTech and the other by Moderna—will make them challenging to distribute. Both also require 2 doses.

Most concerning is the Pfizer-BioNTech candidate, which requires storage at -70°C and will be shipped in containers with dry ice that hold 975 doses apiece, according to a Pfizer representative's [presentation](#) at an ACIP meeting in September. CVS and Walgreens will maintain the cold chain for COVID-19 vaccines and distribute them to facilities in most rural areas, according to the

federal government's announcement. But what happens to rural facilities that may not be within their reach or near a pharmacy that can properly store the vaccines?

After all, Hannan said, "That's not something you're going to send to a long-term care facility in rural Montana because a lot of those doses would get wasted." Some states strategized about vaccine distribution before the partnership was announced. Oregon, ninth largest in terms of land area, considered placing storage depots across the state and using emergency medical responders to conduct mobile vaccination clinics, Cieslak said.

Moderna's mRNA vaccine doesn't require ultracold storage, but it's still a challenge. It must be kept at -20°C , comes in 100-dose packs, and requires laboratory-grade freezers that log temperatures to make sure required ranges are maintained. Most commonly used vaccines [require only refrigeration](#). Three exceptions—the combination measles-mumps-rubella-varicella, Varivax for chickenpox, and Zostavax for shingles—must be kept no warmer than -15°C .

An extra hurdle arises for long-term care workers who aren't vaccinated on site and must travel to a hospital or community pharmacy to get a shot. The goal is vaccinating all long-term care workers but, Hannan said, "The devil is in the details."

Boosting Vaccine Confidence

Even if vaccines are available, their acceptance isn't guaranteed. Among health care workers, those in long-term care have had the lowest influenza vaccination rates—[69.3%](#) during the 2019-2020 flu season, according to an opt-in internet survey conducted by the CDC. That compares with 93.2% of workers in hospitals and 78.8% of those in ambulatory care centers and physician offices.

Unlike hospitals, most nursing homes haven't required their workers to get flu shots. But industry leaders have said more nursing homes are doing so this year because they fear simultaneous COVID-19 and influenza outbreaks.

Ideally, educating long-term care workers about a COVID-19 vaccine should be more intensive than for a flu vaccine, Christian Bergman, MD, of Virginia Commonwealth University in Richmond, said in an interview. He serves on a state COVID-19 vaccine planning task force and

formed a collaboration of task force officials from various states through the Society for Post-Acute and Long-Term Care Medicine, known as AMDA.

Bergman suggested that educational programs include a live briefing in advance of vaccinations where workers can ask questions and get an information sheet with safety and efficacy data, details about adverse effects, and the populations in which the vaccine was tested.

Work has begun at the state level to develop teaching points that nursing homes can use to address vaccine hesitancy and convey data about a specific vaccine, Bergman noted. President Donald Trump's claims that a vaccine could be ready by Election Day created widespread mistrust that politics would prevail over science. [Poll results](#) shared by the Associated Press and the NORC Center for Public Affairs Research in mid-October showed a quarter of Americans would decline a COVID-19 vaccine, up from 1 in 5 people in May.

Bergman said the goal for educational programs will be to "confidently say to staff members that this vaccine has gone through the appropriate channels and it is safe and effective based on the following data."

To support such efforts, the US Department of Health and Human Services and CDC officials have told state and local officials that they plan to produce educational materials including a website, but details have yet to be disclosed, Hannan said. Neither agency responded to requests for comment.

Nursing homes also say they will step up. In an email, the AHCA/NCAL said the importance of vaccines "has never been more prominent" and its members "are sharing information and education on the importance of vaccines with their staff, including that [vaccines] help protect the person vaccinated as well as the residents, staff, visitors, and community."

One nursing home chain, ProMedica Senior Care, formerly HCR ManorCare, plans to educate workers at its senior care facilities in 26 states with strategies such as virtual town halls where workers can ask questions of medical leaders, Chief Medical Officer Mark Gloth, DO, said in an interview. He added that employees who are offered a vaccine and refuse will be required to sign a form acknowledging that they've been counseled on risks and benefits.

"We need to be actively engaged," Gloth said.

But without more specific information about potential vaccines, nursing homes are limited in what they can do to prepare, said Barbara Resnick, PhD, RN, a geriatric nurse practitioner and professor at the University of Maryland School of Nursing. Resnick would like to address COVID-19 vaccine hesitancy with the staff she works with at Roland Park Place senior living facility in Baltimore. For now, however, she said it's not possible without specific safety and efficacy data.

The Question of Mandates

Even a strong educational push might need reinforcement. CDC [data](#) show that flu vaccination rates are highest among health care workers in settings where it's required. During the 2019-2020 season, the vaccination rate for those workers was 94.4% vs 80.6% for health care workers overall.

In an [article](#) published in May, Dorit Reiss, PhD, of the University of California Hastings College of the Law in San Francisco, and bioethicist Arthur Caplan, PhD, of the New York University Langone Medical Center, predicted that a COVID-19 vaccine mandate for health care workers "will surely be imposed with almost no if any exceptions." They cited the risk of exposure to nonclinical staff, vulnerable patients, and others, as well as the need to keep the health system functioning.

However, it's unclear where a mandate might come from or when.

Resnick predicted that states would mandate health care worker vaccinations, as they have with flu. "If we want to move quickly into some type of herd immunity, there's going to have to be a state push," she said. But state flu vaccination policies for long-term care workers [vary widely](#). Some require nursing homes to vaccinate their workers, with only narrow exceptions. Others require employers only to offer vaccines or to document how many workers get them. A similar hodgepodge could occur with a COVID-19 vaccine, resulting in confusion for workers and uneven protections for residents and workers.

Bergman suggested it would be faster and more effective for a federal agency such as the Centers for Medicare & Medicaid Services (CMS) to step in with a regulation. The agency has [compelled hospitals](#) to increase worker flu vaccination rates by adding those data to the Inpatient Quality Reporting Program, and it [required](#) nursing homes to offer influenza and pneumococcal vaccines to residents. CMS did not respond to a request for comment.

Caplan said once vaccine supplies are robust, which could take months after approval, nursing homes themselves might move to mandate COVID-19 vaccination for

workers to reduce their liability and demonstrate to residents' families that they are taking necessary precautions to protect their loved ones.

Gloth said he doesn't expect his company to mandate vaccination, at least not initially. Although many staff members are enthusiastic about a vaccine, Gloth said that with any new biological product, "people have concerns. We want to be respectful of that."

Despite the enthusiasm, a vaccine probably won't eliminate the need for strict nursing home protocols such as universal testing, wearing personal protective equipment, restrictions on visitors, and isolating residents who test positive for COVID-19. CDC and state guidance that prescribes those measures is unlikely to change until data are available on the duration of immunity from a vaccine, Renee Beniak, PhD, RN, executive director of the Michigan County Medical Care Facilities Council, which represents county-owned nursing homes, said in an interview.

Initial vaccines will likely reduce the risk of becoming infected or lessen the severity of illness, but they're unlikely to eliminate all risk, Gloth noted. Rather, he said, a vaccine will provide "another layer of infection prevention and control." ■

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