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## COVID-19 Cases Among Nursing Home Residents and Employees During an Outbreak — Alaska, 2021

### Background

As of March 30, 2021, 59,710 cases of COVID-19 and 309 associated fatalities were reported to the Alaska Division of Public Health. Most fatalities (267, 86%) were among persons aged  $\geq 60$  years.<sup>1</sup> Nationally, the average case-fatality rate among residents of long-term care facilities (LTCF) has been  $>20\%$  compared with 3% in the general population.<sup>2</sup> In order to address this disparity, nursing home residents and health care workers were given first priority for COVID-19 vaccine in Alaska starting on December 14, 2020.

On January 19, 2021, a case of SARS-CoV-2 infection was identified in a staff member working at Nursing Home A. At the time, the facility was comprised of 55 residents and 106 active staff members; 42 (76%) residents and 75 (71%) staff had at least one dose of an mRNA COVID-19 vaccine. The infected person reported having a positive test as part of routine testing at a different long-term care facility where they also worked. This person had been vaccinated 5 days prior to the screening test and recalled experiencing chills 2 days prior to the screening test, which had been attributed to the vaccination. All Nursing Home A staff had a negative routine surveillance test for SARS-CoV-2 infection on January 11. After the initial staff member tested positive, all Nursing Home A staff and residents were tested twice weekly starting January 25.

### Methods

Data on vaccination type, status, and timing; prior known SARS-CoV-2 infection; symptoms experienced; and SARS-CoV-2 molecular and antigen test results performed during January–February 2021 were collected for each resident and staff member at Nursing Home A.

### Results

During January 19 through February 18, 2021, 7 (13%) residents and 8 (8%) active staff members tested positive for SARS-CoV-2. Of the 15 residents and staff who tested positive, 10 (67%) were asymptomatic and 10 (67%) were people who had received at least one dose of vaccine (Table). Seven had completed their vaccination series 9–34 (median 19) days prior to testing positive. All residents were asymptomatic, regardless of vaccination status. Five staff members experienced mild symptoms, including two who had been fully vaccinated at least 3 weeks prior to testing positive. None of the staff or residents required medical attention. The median age of residents who tested positive was 78 years (range 70–86). Six of seven (86%) positive residents had at least one condition considered high-risk for severe COVID-19;<sup>3</sup> the median number of high-risk conditions was 2 (range: 0–2).

All facility residents were in private rooms, and those who tested positive were located in one discrete section of the facility and could be readily isolated from other residents. Screening testing of staff occurred at least weekly and staffing levels were adequate to allow all staff identified as close contacts to complete 14-day quarantine periods.

### Discussion

This report summarizes a SARS-CoV-2 outbreak at a nursing home comprised of 161 residents and staff, 70% of whom were vaccinated with at least one dose of a COVID-19 mRNA vaccine prior to identification of the first case. The outbreak was confined to 15 infected persons who were geographically linked within the facility, none of whom had previously been infected with SARS-CoV-2. Ten (67%) of those infected were

asymptomatic; the remaining five (33%) only experienced mild COVID-19 symptoms. None were hospitalized and none died.

Because LTCF residents live in group settings and are typically older adults with underlying chronic medical conditions, they are at particularly high-risk for severe COVID-19; therefore, it is particularly important that LTCF residents receive COVID-19 vaccination. Moreover, LTCF staff should also get vaccinated, as they can inadvertently introduce SARS-CoV-2 virus into facilities by working while infected.

There is excellent scientific evidence showing that the currently available COVID-19 vaccines are highly effective at preventing mild to moderate COVID-19 and even more effective at preventing severe illness and death. Moreover, recent epidemiologic studies provide promising evidence to indicate that they also appear to be very effective at preventing asymptomatic infection.<sup>4,5</sup> As is demonstrated by this outbreak, high vaccine coverage rates among residents and staff may not prevent small LTCF outbreaks from occurring but will help keep case counts low and curtail hospitalizations and deaths.

**Table. SARS-CoV-2-Positive Nursing Home A Staff and Residents (N=15), by Vaccination and Symptom Status**

	Positive test date	Symptoms	Vaccine 1 <sup>st</sup> Dose	Vaccine 2 <sup>nd</sup> Dose
Staff 1	1/19/21	Chills	1/14/21	
Staff 2	1/22/21	Mild cough		
Staff 3	1/25/21	None		
Staff 4	1/25/21	None	12/26/20	1/16/21
Staff 5	1/30/21	Fever		
Staff 6	2/8/21	Nausea, diarrhea	12/26/20	1/16/21
Staff 7	2/15/21	Headache	12/20/20	1/12/21
Staff 8	2/18/21	None	12/26/20	1/16/21
Resident 1	1/25/21	None	12/30/20	1/13/21
Resident 2	1/25/21	None	12/23/20	1/13/21
Resident 3	1/25/21	None	1/22/21	
Resident 4	1/25/21	None	1/22/21	
Resident 5	1/25/21	None		
Resident 6	1/28/21	None		
Resident 7	2/1/21	None	12/22/20	1/12/21

### Recommendations

1. Residents and staff of long-term care facilities should be promptly vaccinated against COVID-19.
2. Continue to implement mitigation measures (e.g., masking, distancing, testing) in LTCF after vaccination when community SARS-CoV-2 transmission rates are elevated.
3. Follow [CDC's infection prevention and control guidance](#) to prevent SARS-CoV-2 spread in nursing homes.
4. Because postvaccination symptoms may be difficult to distinguish from COVID-19 symptoms, consider obtaining a COVID-19 diagnostic test if symptoms persist.

### References

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