

COVID-19 Preparedness in Nursing Homes in the Midst of the Pandemic

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Nursing homes (NH) are considered hotspots for COVID-19^{1,2} given their residential environments and patient vulnerabilities.^{3,4} We describe the COVID-19 preparedness of NHs across the nation.

Methods

We used a convenience sample of NHs with available email addresses drawn from national surveys conducted in 2013 and 2017^{5,6} (N=942). We used Qualtrics software to email a 30-item survey on 3/30/2020. After two reminder emails, we closed the survey on 4/5/2020.

Results

Fifty-six NHs responded nationwide, including respondents from 29 states: Midwest (30%), West (25%), Northeast (23%), and South (22%). Most were for-profit (68%) with fewer non-profit (27%) and government-owned (5%). Some (38%) were part of a chain. The sample distribution by ownership was similar to the nation. By region, the Northeast and West, two of regions hit hard and early by COVID-19, were overrepresented. Nationally, 58% were part of a NH chain. (Table 1).

Guidance and preparedness

On average, NHs used 2 to 5 guidance documents for COVID-19. The most common were: Center for Disease Control (88%), state or local health departments (84%), corporate (53%), World Health Organization (48%), local hospital/healthcare organization (39%), and the

Association for Professionals in Infection Prevention & Epidemiology (27%). Staff responsible for preparedness most often included infection preventionists (39%), directors of nursing (32%), and administrators (27%).

Slightly more NHs (54%) had separate COVID-19 plans, others included COVID-19 in their current disaster preparedness plan (46%). All had: plans for training staff to address COVID-19 (100%), processes to limit/restrict visitors (100%) and outside vendors/consultants (100%), policies regarding ill employees returning to work (100%), and guidance for employees regarding COVID-19 outbreak (100%). Almost all (96%) had policies for screening visitors. Some (29%) conducted COVID-19 outbreak simulations.

NHs reported clear lines of communication and relationships with hospitals. Most (68%) indicated they had a local referral hospital accepting their patients under investigation for COVID-19. Most indicated clear lines of communication with public health officials (96%) and nearby hospitals (87%) regarding their role in containing/managing the pandemic. One-fourth (25%) indicated they were counted on as an alternative care site for hospitalized COVID-19 patients, and more than three-fourths (79%) were accepting non-COVID-19 patients as hospital overflow. Few (18%) planned to discharge residents to free beds for hospital patients.

Testing, supplies, and staffing

Two-thirds reported access to COVID-19 testing (66%), with testing available for patients (100%) and some staff (53%). Nearly three-fourths (72%), however, reported having inadequate supplies. Among those were N-95 respirators (90%), gowns (90%), face guards/eye

protection (88%), alcohol-based sanitizer (67%), surgical masks (64%), and gloves (39%). Five-sixths (83%) expected significant staff shortages. Common strategies to address staff shortages included having staff volunteer for extended hours (55%) and non-clinical staff filling different roles (45%). Less-common were using contracted/agency staff (19%) and mandating extended hours (16%).

When asked their greatest COVID-19 preparedness concern, administrators cited lack of supplies (43%), staff shortage (34%), and resident health and safety (14%).

Equipment concerns typically related to availability of personal protective equipment (PPE) (29%), including N95 masks and respirators, face shields and plastic zipper tents. One administrator lamented, *“Not having enough PPE to keep up with a COVID-19 outbreak and sufficient staffing if staff become ill.”* Another noted, *“Not enough available supplies for staff, such as an N95 masks or respirators or face shields; now we are using cotton-made face masks and...sanitary pads as an additional barrier.”*

Staff shortages focused on licensed staff. One cited, *“Licensed staffing availability, specifically RN/LPN are hard to recruit in our market. We have plenty of non-licensed staff.”* Another cited, *“Not enough staff to deal with the increased needs of patient[s].”*

Financial effects

Few NHs indicated the COVID-19 financial impact was unknown (14%) or nil (13%). Most indicated increased costs for supplies (58%), employee hours (38%), or fewer admissions (27%). One administrator said, *“Employee fears are affecting call-ins and the ability to replace*

staff on the floor, resulting in increased overtime.” Another noted “social distance” requirements meant more staff time was needed to serve meals. One said postponement of elective surgeries led to fewer admissions for post-surgery rehabilitation.

Discussion

NHs are having trouble responding to the COVID-19 pandemic, despite Medicare and Medicaid changes that have recently increased infection prevention infrastructure.⁷ Our national results are similar to a survey of Michigan NHs,⁸ demonstrating the extent of this problem. Our small sample means we can only offer descriptive results. Nevertheless, our results do indicate the need for NHs to continue refining their preparedness strategies in response to local virus prevalence, resident population, and local regulations, including state policies on accepting COVID-19 patients discharged from hospitals.

Table 1. Nursing Home Characteristics, By Survey Sample and the Nation

	Survey	National
Region¹	%	%
Midwest	30.36	32.85
Northeast	23.21	16.55
South	21.43	35.21
West	25.00	15.39
Ownership¹		
For Profit	67.86	70.07
Government	5.36	6.49
Non Profit	26.79	23.44
Chain Facility²	37.50	58.30

Sources:

¹ Region and ownership at the national level was calculated from CMS' Nursing Home Compare data updated March 31, 2020. Accessed on April 17, 2020. <https://data.medicare.gov/Nursing-Home-Compare/Provider-Info/4pq5-n9py>

² Chain management at the national level was calculated from 2017 Certification and Survey Provider Enhanced Reports (CASPER). Accessed on April 17, 2020. <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/NursingHomeQualityInits/Skilled-Nursing-Facility-Quality-Reporting-Program/SNF-Quality-Reporting-Program-Public-Reporting>

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