

Technical Brief 5 – April 21, 2021

The COVID-19 pandemic has devastated nursing homes. What should North Carolina's policy priorities be?

Introduction

Nursing homes (NH) have emerged as important intervention sites for stemming the spread of SARS-CoV-2, beginning with the March 2020 orders from the Centers for Medicare & Medicaid Services (CMS) to restrict visitors (including non-essential workers from NH). The COVID-19 pandemic has highlighted our interdependence across communities. Like other congregate settings (e.g., prisons), NH have higher COVID-19 incidence than the general population^{1,2} an outcome of a confluence of factors, such as the communal nature of the facilities, thin profit margins in the NH industry, and cost-cutting measures such as facilities' use of short-term, part-time contract workers who work at multiple facilities³. The toll of the disease highlighted the differential vulnerability within the U.S. population, notably heightened risk among older adults and residents with chronic health conditions in congregate settings. As of December 2020, in the U.S., deaths of NH residents and workers exceeded 100,000 and accounted for over 40% of COVID-19 related deaths.

As early as April 2020, there were over 20 outbreaks within congregate care settings across three counties in NC.⁴ As of 21 April 2021, there are 35,889 cumulative COVID-19 cases and 4,056 deaths in NH. While case counts and deaths have increased since the initial COVID-19 vaccine roll-out, the growth rate has declined and the number of

NH with active outbreaks has decreased from 347 (85%) of NC facilities on 15 February 2021 to 135 facilities (32%) with active outbreaks as of April 21, 2021.

In compliance with federal guidelines,⁵ NC hospitals follow protocols to ensure that patients are discharged and transferred to medically appropriate facilities that are able to monitor and care for patients with a COVID-19 diagnosis, e.g. quarantine requirements.^{6,7} The large share of COVID-19 related deaths in nursing facilities is concerning as hospitals increasingly rely on post-acute referrals to nursing facilities as 'safety valves' amid shortages of intensive care unit beds.^{7,8} CMS estimated that 23% of Medicare beneficiaries hospitalized with COVID-19 were discharged to Skilled Nursing Facilities.⁹

To address these myriad challenges, we propose three policy recommendations:

Recommendation 1:

Improve testing infrastructure for identification and timely reporting of COVID-19 and other infectious disease outbreaks in workers, guests, and residents within nursing facilities.^{10,11}

Workers in NH are essential workers whose work cannot be done remotely and thus experience a higher risk of exposure. COVID-19 positivity has been as high as 19% among health-care workers¹² with data suggesting higher positivity among the lowest paid healthcare workers, such as in NH. Nurses were more likely to be hospitalized with COVID-19 than their physician counterparts, due, in part, to their higher and more prolonged contact with patients on the job.¹³ Timely event detection to limit transmission within NH could provide a sentinel of wider community transmission.¹⁴ Incorporating data from NH and other congregate-living facilities into a statewide or national syndromic surveillance system could facilitate the near real-time identification and monitoring of COVID-19, as well as other infectious disease, outbreaks.



Figure 1. Locations of Nursing Homes in North Carolina (HRSA, 2020); map created in ArcGIS Pro Online

Recommendation 2:

Increase resources and training to improve and maintain sanitation and infection control among NH workers, among whom there is high turnover, and recommend policies supporting better benefits/wages.

The average annual nursing staff turnover rate for U.S. NH is 128%, and NC facilities fall within the upper range of values. Registered nurses have the highest mean turnover rate (140.7%), compared with certified nursing assistants (CNAs) (129.1%) and licensed practical nurses (114.1%). Nursing staff turnover rates vary by ownership type (higher for chain-owned, for-profit facilities) and payor mix (higher for facilities with predominately Medicaid-insured residents).¹⁵ This suggests that facilities serving majority-Medicaid-insured and residents of color may be less able to implement measures to reduce transmission.

In June 2020, over one-fifth of U.S. NH reported staffing shortages and shortages of personal protective equipment (PPE). Workers in NH that serve high shares of Medicaid beneficiaries were less likely to be provided PPE. Thus, there are higher contact rates between workers and residents in multiple facilities as staffing ratios decline in conjunction with a lack of PPE.

This is also a matter of racial and ethnic equity. Direct care workers, such as NH workers, are disproportionately people of color^{18,19,20} are disproportionately immigrants^{21,22} are less likely to be paid \$15+/hour,²³ and have low rates of insurance coverage and fewer sick days. Higher wages and provision of benefits such as health insurance and sick leave may reduce both turnover and infectious disease transmission. During 2020, several states, including NC, implemented temporary pay increases to support the long-term care workforce,²⁵ yet these pay increases will expire in subsequent years unless state or federal governments act.

Recommendation 3:

Prioritize a racially and ethnically equitable vaccine dissemination for both NH residents and workers.

Prioritizing vaccinations for NH staff directly benefits the well-being of NH residents; reflects the social compact we have with staff to care for some of our most vulnerable populations; and improves equitable vaccine receipt. Prior to the COVID-19 pandemic, workers in NH had low rates of flu vaccination²⁶ and residents experienced high mortality due to seasonal flu outbreaks relative to the general population.²⁷ Historically, there have been inequitable flu vaccination rates in NH, e.g. Black-white vaccination disparities among residents ranging 2-20%.^{28,29} Lower rates of employer-sponsored health insurance also means that these workers may have less access to flu vaccines, and may face barriers to accessing the COVID-19 vaccine, despite it being provided free of cost.³⁰

Conclusion

In conclusion, we can apply the lessons from this pandemic to prevent deaths from endemic infectious diseases, such as the common flu³¹, while preparing for the next pandemic. The COVID-19 pandemic represents a teachable moment, and even as COVID-19 transmission rates decline in NC, it is necessary to consider that nursing homes need improved infection controls, reporting mechanisms/infrastructure, and investments in the direct care workforce to help reduce infectious disease spread among nursing home residents and workers.



Suggested Citation

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About the Project

The NC COVID-19 Mobility and Health Impacts Study is investigating COVID-19 data trends in NC. Led by the [UNC Highway Safety Research Center](#), this project brings together an impressive team of multidisciplinary research partners from across the UNC System, including UNC-CH's Cecil G. Sheps Center for Health Services Research, Gillings School of Global Public Health, Odum Institute for Research in Social Science, and the NC State University Department of Statistics, to research the interrelationships of public health policies, mobility changes, and the transmission of COVID-19 to inform policy decisions in North Carolina. This project is supported by the North Carolina Policy Collaboratory at the University of North Carolina at Chapel Hill with funding from the North Carolina Coronavirus Relief Fund established and appropriated by the North Carolina General Assembly.



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