Neighborhood Deprivation and Nursing Home Staffing: Lessons for Policy and Practice

Policy Brief

About This Report

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About the LTSS Center

The LeadingAge LTSS Center @UMass Boston conducts research to help our nation address the challenges and seize the opportunities associated with a growing older population. LeadingAge and the University of Massachusetts Boston established the LTSS Center in 2017. We strive to conduct studies and evaluations that will serve as a foundation for government and provider action to improve quality of care and quality of life for the most vulnerable older Americans. The LTSS Center maintains offices in Washington, DC and Boston, MA.

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Key Takeaways

Providing high-quality care often depends on the ability of nursing homes to maintain adequate levels of staffing. Yet, research suggests that there are striking staffing disparities in nursing homes throughout the nation, with staffing shortages disproportionately affecting older adults who belong to racial and ethnic minoritized groups and economically disadvantaged populations.

Less is known about how these disparities might be influenced by neighborhood context or the socioeconomic factors in neighborhoods where nursing homes are located. The research study described in this policy brief was designed to fill this information gap.

The research team analyzed data from the Area Deprivation Index (ADI), a measure of neighborhood socioeconomic disadvantage at the census block group level that is linked with publicly available nursing home quality and staffing data at the care-setting level. After mapping the ADI scores for 12,609 U.S. nursing homes, researchers found that 16% of nursing homes were located in severely disadvantaged neighborhoods.

The analysis found that nursing homes located in severely deprived areas:

- Serve a higher proportion of Black residents and are more likely to be located in rural areas.
- Are staffed for fewer hours by clinical workers like registered nurses (RN) and physical therapists, compared with nursing homes in less disadvantaged areas.
- Are more likely to substitute nursing staff with less training to provide clinical care. This practice raises concerns about quality of care.

Study findings suggest a need for specific policies and practices aimed at improving and stabilizing nurse staffing in nursing homes located in severely disadvantaged communities. Researchers make the following recommendations:

- Policymakers should geographically micro-target policy interventions or enhanced Medicare and Medicaid reimbursements to nursing homes with the most pronounced staffing disparities; fund workforce enhancement programs that provide funding to vulnerable nursing homes in inner cities and rural areas; improve access to transportation to help nursing homes recruit staff; and establish a National Service Corps for RNs willing to work in nursing homes located in severely disadvantaged neighborhoods.

- Nursing home providers should create a supportive work environment to help them attract and retain RNs, certified nursing assistants, and other clinical staff; collaborate with local educators to provide high-quality clinical placements for nursing students; and take steps to grow their own clinical staff by offering access to career ladders and lattices.

Finally, researchers recommend that policymakers take nursing home disparities in severely deprived areas into account before implementing stricter staffing regulations, as these requirements could inadvertently widen disparities by placing undue pressures on these nursing homes.

Introduction

Approximately 1.3 million older adults, many of whom have complex medical needs, live in nursing homes throughout the United States (National Center for Health Statistics, 2022). Providing these older adults with high-quality services and supports remains a high priority for residents, their families, providers of aging services, and policymakers.

Providing high-quality nursing home care often depends on the ability of nursing homes to maintain adequate levels of staffing. Previous studies have shown that:

- ⮕ Nursing homes have better resident outcomes if they maintain higher levels of registered nurse (RN), certified nursing assistant (CNA), and rehabilitation staffing.
- ⮕ RN staffing in nursing homes is associated with lower infection rates and lower mortality rates (Harrington et al., 2020).
- ⮕ Higher staffing levels among CNAs have been shown to be associated with fewer deficiency citations in nursing homes (Hyer et al., 2011).
- ⮕ Greater rehabilitation staffing in nursing homes is associated with fewer falls and better resident performance of the activities of daily living (Livingstone et al., 2022; Livingstone et al., 2019).

Maintaining staffing levels is a challenge for all nursing homes, particularly since the COVID-19 pandemic began. However, research suggests that there are striking staffing disparities in nursing homes throughout the nation, with staffing shortages disproportionately affecting older adults who belong to racial and ethnic minoritized groups and economically disadvantaged populations.

Less is known about how these disparities might be influenced by neighborhood context or the socioeconomic factors in neighborhoods where nursing homes are located. The research study described in this policy brief was designed to fill this information gap.

Researchers from the New York University Rory Meyers College of Nursing and the University of Maryland School of Medicine worked in collaboration with researchers at the LeadingAge LTSS Center @UMass Boston to evaluate how levels of deprivation in a variety of neighborhoods have affected staffing levels in nursing homes located in those neighborhoods.

As part of the study, the research team analyzed data from the Area Deprivation Index (ADI), a measure of neighborhood socioeconomic disadvantage at the census block group level that is linked with publicly available nursing home quality and staffing data at the care-setting level. Significantly, the ADI measures socioeconomic disadvantage in small census blocks representing 600 to 3,000 residents, making it a more accurate measure of socioeconomic disadvantage than measures of larger census blocks that may contain both severely disadvantaged and less-disadvantaged neighborhoods (Falvey et al., 2022).

Study Findings

Nursing Homes in Severely Disadvantaged Neighborhoods

After mapping the ADI scores for 12,609 U.S. nursing homes, researchers found that 16% of nursing homes in the study were in severely disadvantaged neighborhoods. These nursing homes were more likely to be in rural areas and to serve a higher proportion of Black residents and Medicaid recipients.

Notably, nursing homes in severely deprived neighborhoods were more likely to:

- Be owned by for-profit entities.
- Have more residents who rely on Medicaid as a primary payer of services.
- Serve a higher proportion of Black residents.
- Be located in rural counties, compared to urban counties (Falvey et al., 2022).

Disparities in Staff-to-Resident Ratios

While most U.S. nursing homes are concerned about low staff-to-resident ratios, this staffing gap is even more pronounced in severely disadvantaged communities. An analysis of the quality and payroll-based staffing data of nursing homes in severely disadvantaged neighborhoods showed that nursing homes located in these neighborhoods are staffed for fewer hours by clinical workers like RNs and physical therapists, compared with nursing homes in less disadvantaged areas.

When compared with staffing levels in less disadvantaged neighborhoods, staffing levels in severely disadvantaged neighborhoods were:

- 38% lower for physical and occupational therapists.
- 30% lower for RNs (Falvey et al., 2022).

In a 100-bed nursing home located within a severely deprived neighborhood, for example, six fewer daily hours of RN care would typically be provided to residents, compared to a similar nursing home in a less deprived area. This is a large disparity, given the already low RN-to-resident ratios in all skilled nursing homes—a situation that has been exacerbated further by the COVID-19 pandemic (Buerhaus, 2022).

Care Substitution

Significantly, nursing staff with generally lower salaries and training—CNAs and licensed practical nurses (LPN)—experienced smaller or no disparities in staffing, compared with RNs. LPNs experienced no observed staffing disparities, and staffing levels were only 5% lower for CNAs, in nursing homes located in severely deprived neighborhoods, compared to staffing in less deprived neighborhoods (Falvey et al., 2022).

This lack of disparity suggests that nursing homes in more disadvantaged communities may be substituting care traditionally provided by RNs with care provided by staff with less training. Even after accounting for differences in the complexity of medical conditions among nursing home residents, substitution of less trained nursing staff to provide clinical care remained evident in the findings, raising concerns about quality of care.

Reasons for Staffing Disparities

Taken together, study findings suggest a negative association between the level of neighborhood deprivation and nursing home staffing in the United States. While this study did not evaluate the mechanisms by which neighborhood characteristics influence nursing home staffing, there are several plausible explanations for these disparities.

Recruitment and Retention Challenges
Nursing homes in socioeconomically disadvantaged areas may be limited in their ability to attract and retain qualified staff. Staff turnover is high within these areas, particularly among RNs (Gandhi et al., 2021).
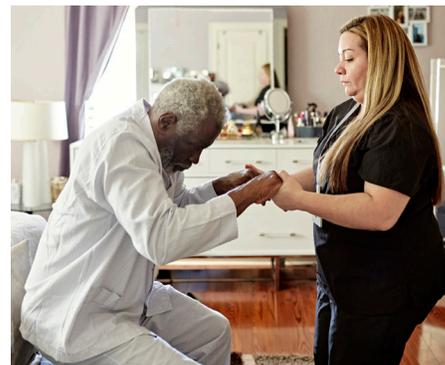
Difficulty recruiting and retaining RNs may be one explanation for the substantial differences in RN staffing observed in this study, and for the increased reliance by nursing homes on LPNs with less training than RNs. Prior work hints at several possible reasons for the recruitment and retention challenges experienced by nursing homes in disadvantaged areas, including:

- Perceptions among prospective employees that they will experience higher administrative burden while working with residents who require more care.
- Lower pay in nursing homes that rely on lower reimbursements from Medicaid.
- Greater challenges facing employees who must commute to care settings located in severely disadvantaged neighborhoods (Fiscella & Williams, 2004).

Dearth of RNs Living in Disadvantaged Neighborhoods
Nursing homes in severely disadvantaged neighborhoods could encounter challenges as they seek to recruit RNs who already reside in these neighborhoods.

Individuals with lower levels of nurse training, including LPNs and CNAs, are more likely than RNs to live in socioeconomically disadvantaged areas and may be less likely than LPNs and CNAs in more affluent neighborhoods to become RNs. LPNs and CNAs living in severely disadvantaged neighborhoods may have limited access to the level of professional education required to become RNs, either because they cannot afford the high costs of training or because they cannot make the time commitment required to complete training requirements.

> **Nursing homes in socioeconomically disadvantaged areas may be limited in their ability to attract and retain qualified staff. Staff turnover is high within these areas, particularly among RNs.**

Racial Bias

State and federal policies that are racially biased or overtly racist have contributed to segregation of minorities into socioeconomically disadvantaged neighborhoods. In addition, prior work has shown that nursing homes with greater concentrations of minority residents have lower levels of staffing (Li et al, 2015).

These trends suggest that structural racism may be a potential explanation for the disparities observed in this study. Structural racism may contribute to underinvestment in nursing homes located within severely deprived neighborhoods and can result in fewer resources being allocated to support competitive staff pay and high-quality working conditions.

Implications for Policy

The urgency of addressing staffing issues in nursing homes has increased since President Joe Biden highlighted the issue as a key priority for his administration in his 2022 State of the Union Address. More recently, the National Academies of Sciences, Engineering, and Medicine (2022) issued recommendations for improving staffing as part of its April 2022 report on reforming nursing home care.

As policymakers explore the need for stricter staffing regulations, they must ensure that these requirements do not inadvertently widen staffing disparities by putting undue pressure on nursing homes in severely disadvantaged neighborhoods. This possibility is particularly worrisome considering the practice among managed care organizations and other value-based provider networks to tighten restrictions on nursing homes with lower quality ratings or to exclude these nursing homes from their programs. Preventing nursing homes located in severely disadvantaged communities from participating in referral networks may exacerbate, rather than ameliorate, disparities in care quality for these settings, which typically provide care to older adults who are more socially vulnerable.

Study findings suggest a need for specific policy initiatives and incentives aimed at improving and stabilizing nurse staffing in nursing home located in severely disadvantaged communities. Based on the findings of this study, the research team recommends the following:

➲ **Micro-target policy interventions.** Federal and state policymakers could use the Area Deprivation Index to allow "micro-targeting" of policy interventions or enhanced Medicare and Medicaid reimbursements to nursing homes with the most pronounced staffing disparities. This targeted approach, based on census block groups, would be less expensive and more effective than efforts to implement interventions in larger geographic areas (Hawk et al., 2022). A targeted approach would be especially beneficial in urban settings where wealthy neighborhoods and severely disadvantaged neighborhoods share the same county or zip code. Using geographic indicators like the ADI would also allow policymakers to address inequities without running afoul of legal challenges to race-based allocations of resources—challenges that are more likely in the current political environment (Schmidt et al., 2020).

⊙ **Fund workforce enhancement programs.** States could provide funding to vulnerable nursing homes in inner cities and rural areas through workforce enhancement programs. These programs could help nursing homes recruit and retain nurses, particularly RNs. In addition, Medicaid agencies and state departments of labor could develop apprenticeships and other programs that provide career ladders to help CNAs become LPNs and RNs. These and other workforce enhancement programs could help nursing homes recruit and retain staff who are living in underserved areas, thus providing jobs and opportunities for economic growth in these neighborhoods.

⊙ **Improve access to transportation.** States and local governments could help nursing homes recruit staff, and bolster employment in rural and urban neighborhoods, by improving access to transportation. These improvements could be accomplished through enhanced public transportation, ride-sharing, or other innovative models.

⊙ **Establish a National Service Corps for RNs.** Federal policymakers could designate certain disadvantaged communities as "severe worker shortage areas" and develop a National Service Corps of RNs who would commit to several years' employment in a nursing home located in a disadvantaged community in exchange for extra pay and other benefits. This service corps could also include rehabilitation therapists, or a separate corps could be created to expand the therapist pipeline.

" **Study findings suggest a need for specific policy initiatives and incentives aimed at improving and stabilizing nurse staffing in nursing home located in severely disadvantaged communities.** "

Implications for Practice

Nursing homes have a clear incentive and a serious responsibility to address and improve nurse staffing within their care settings. Based on the findings of this study, the research team recommends that nursing homes in severely disadvantaged neighborhoods take these actions:

- **Create a supportive work environment.** Nursing homes in vulnerable neighborhoods must create supportive work environments to attract RNs, CNAs, and other clinical staff to their care settings and, equally important, to keep these professional caregivers on the job. Creating such a work environment will involve not only offering competitive wages and benefits but also providing professional opportunities that empower RNs to provide good clinical care and high-quality supervision of frontline staff.

- **Collaborate with local educators.** Nursing home operators and administrators in vulnerable neighborhoods should collaborate with local schools of nursing to provide high-quality clinical placements that could introduce nursing students to their care settings. Given the fact that many of the CNAs and residents in these nursing homes are people of color, it makes sense for organizations to seek out students that match the ethnic and racial composition of their staff and care recipients. Collaborations with historically Black colleges and universities and other minority-serving nursing programs could help nursing homes find a reliable pipeline of RNs.

- **Grow from within.** Nursing homes in severely disadvantaged communities can take several steps to grow their own clinical staff. For example, they can provide current staff with opportunities to climb the career ladder by encouraging them to pursue training as LPNs or RNs. Nursing homes can also offer subsidies to encourage CNAs to become specialists, within the aide occupation, in such areas as dementia care, behavioral health, and medication management. This investment in the career advancement of care staff would improve staffing for the nursing home while also contributing to economic growth in the surrounding community.

> 66 **Nursing homes have a clear incentive and a serious responsibility to address and improve nurse staffing within their care settings.** 99

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