Challenges to Admitting Residents: Perspectives from Rural Nursing Home Administrators and Staff

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Abstract

Rural residents are older, on average, than urban residents, with more underlying health conditions and higher rates of disability. Rural nursing homes face unique challenges admitting medically-complex patients and meeting their needs throughout their stay. These challenges may be amplified for certain health conditions. Greater geographic distances also strain transitional care coordination practices with health system referral hubs in urban areas. In this study, we assess perceptions of difficulty rural nursing homes encounter in admitting and serving individuals with dementia, obesity, mental and behavioral health conditions, and medically complex conditions. Using a survey of nursing home administrators located in non-metropolitan counties across the U.S. (n = 209), we assessed the self-reported degree of difficulty identified in serving each of the 4 type of conditions, coupled with qualitative analysis of open-ended questions identifying specific challenges. Rural nursing homes have capacity constraints owing to lower population density, limited financial resources, and unique challenges recruiting and retaining workforce to rural areas. Nursing home administrators reported the most challenges to providing high-quality care to residents with mental and behavioral health challenges, followed by obesity. For specific challenges, administrators focused primarily on staffing concerns, as well as space and equipment needs. Rural nursing home administrators identified challenges related to specific conditions and capacity constraints. To ensure appropriate and high-quality nursing home placement for rural residents, and to minimize the disruption of transitions into nursing home settings, more attention is needed on addressing the constraints identified by rural nursing home administrators in this study.

Keywords

rural, barriers to care, Alzheimer's disease and dementia, mental and behavioral health, obesity

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What do we already know about this topic?
Rural residents are older, on average, with more underlying health conditions, and they also face unique challenges to accessing care, including long-term care.

How does your research contribute to the field?
This study uses novel survey data from rural nursing home administrators to add their perspective on challenges and opportunities to serving rural residents in need of long-term care.

What are your research's implications towards theory, practice, or policy?
Rural nursing homes face considerable challenges to admitting residents with complex conditions and policy and programmatic interventions are needed to ensure that all rural residents get access to high-quality, timely long-term care.

Introduction

Transitions into nursing facilities are frequent and are fraught with quality and safety challenges to ensuring the best social, emotional, and health outcomes for residents. Short-term stays often occur in the context of post-acute care transitions, from a hospital or other setting (eg, assisted living; home and community based services) into skilled nursing.[1] Long-term stays also include transitions from home and residential settings.[2] In both cases, residents are exposed to potential disruptions in care that can lead to adverse events and rehospitalization.[3-6] Safe and effective transitions require robust communication and coordination practices to ensure that patients are placed in facilities capable of meeting their

needs, and also that these facilities have sufficient information to be prepared to meet patients' clinical, social, and emotional needs upon admission.[7,8]

Risks of poor outcomes during these transitions are heightened for individuals with clinically and socially complex conditions. Placement decisions and sufficiency of transitional care processes are especially challenging for patients whose care needs require early and robust communication beyond standard discharge documentation practices. This includes patients with dementia and other mental or behavioral health conditions, for whom social and environmental needs require advance preparation.[9] This also includes conditions that require specialized equipment and space, including high-intensity medical conditions (eg, wound care and 24/7 antibiotics) and obesity.[10,11] When provider-to-provider handoff occurs, specifically in the context of patients discharged from the hospital to short-term skilled nursing, facilities struggle to convey their challenges in patient accommodation and the informational needs that would support appropriate, high-quality care upon transfer.[7,12] As a result, hospital discharge planners and others managing these transitions continue to have limited information about the post-acute environment and how their decisions and discharge processes facilitate or impede high-quality care in that environment, ultimately impacting patient outcomes.[7,13-15]

These transitional care challenges (eg, rigor and efficiency of communication and coordination workflows) speak to the importance of the process domain of Donabedian's structure-process-outcome quality of care model.[15,16] However, this model also highlights the importance of structural considerations, including facility characteristics (eg, size, location, and staffing) and community characteristics reflected in the patient population (eg, the average level of need and complexity). Structure and process both impact outcomes, directly and through a complex interaction between the 2. Geographic location—specifically, the rurality of a nursing home—importantly illustrates the interconnectedness of these domains. Rurality directly shapes the structural availability of resources to support high-needs transitions, and likely influences how those resources are able to be leveraged to support more robust processes described above. And yet, understanding the specific ways that rurality impacts transitional care processes is not well understood.

A small body of research suggests that rural areas experience unique additional challenges in placing individuals in nursing homes and coordinating post-hospital transfer.[10,11,17]

This is partly related to socio-demographics: rural areas are older, on average, with higher rates of disability and more underlying health conditions, compared with urban areas,[18,19] potentially leading to greater demand for nursing home care. Rural residents also have fewer economic resources, including lower median incomes, higher poverty rates, and lower rates of health insurance, all of which strain rural residents themselves and the health care facilities that serve them.[18,20]

Further, rural areas face considerable structural constraints related to the availability of health care and long-term care, with ongoing examples of both hospital and nursing home closures,[21,22] as well as long-standing provider shortages at all levels.[23] By their very nature, rural areas are larger and often require long distances between patients and receiving facilities, which is complicated by myriad transportation challenges in rural areas.[10,24,25] Rural residents live more than twice as far, on average, from the nearest hospital than urban residents (10.5 vs 4.4 miles), with more than one-quarter of all rural residents living more than 30 minutes from a hospital.[26] These distances create particularly problematic procedural care coordination challenges for rural residents whose care requires that they travel to receive specialty hospital care only available in urban areas. Upon discharge, patients are equally likely to receive post-acute skilled nursing care in a facility close to the hospital or back in their local rural community.[27] However, hospitals tend to invest in improved transitional care processes only with their high-volume post-acute partners, which excludes rural facilities.[28,29]

Policy and health systems solutions to address the challenges associated with transitions into nursing homes must address the unique ways that structure and process interact in rural areas to complicate the pursuit of high-quality transitional care. It is critical to understand, from nursing home administrators' perspectives, what rural nursing homes struggle with in terms of barriers to providing high-quality care for clinically and socially complex patients during and after transition into the facility. This study addresses that gap using survey data from rural nursing home administrators from across the U.S. to identify specific challenges as well as relative strengths related to admitting residents. Insights gained from this study can shape organizational strategies for strengthening structures and processes for long-term and post-acute nursing home care, and as well as inform policy approaches to best support these nursing homes and improve outcomes for the rural residents they serve.

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Methods

Data Source and Sample

Data for this study came from a survey of representatives from 400 randomly selected rural nursing homes from across the U.S. Nursing homes were identified using the Provider of Services (POS) file and were eligible for inclusion in the study if they were Medicare-certified as a Skilled Nursing Facility (SNF). Nursing homes were classified as being located in a rural area if they were located in a nonmetropolitan county, either micropolitan (generally, a county with a population center of 10 000-49 999 people) or noncore (generally, a county with no population center of 10 000 or more). From the POS file, we identified 4 267 eligible nursing homes and used a random number generator to select a sample of 400, approximately 10% of all rural nursing homes in the U.S. The sample size was determined using an estimated response rate of 50%, with a target analytic sample of 200. This sample proportion is comparable with other research on rural nursing homes and allows for descriptive analysis of quantitative and qualitative responses.[30]

Nursing home administrators were sent a letter in the mail and then received telephone follow-up calls inviting them to participate, by phone, mail, or online, depending on their preference. Surveys were conducted by the HealthPartners Survey Research Center between April and December 2017, with a total of 209 respondents (157 by phone, 21 online, and 31 by mail), for a total response rate of 52%. This response rate is consistent with, or above, surveys of similar populations.[30-33] An analysis of the differences between respondents and non-respondents showed that respondents were slightly more likely to be located in noncore counties (vs micropolitan; $P < .05$), compared with non-respondents. There were no differences between respondents and non-respondents in ownership or size. The survey was addressed to the nursing home administrator, but an option was provided for them to appoint a designee. Most respondents were the nursing home administrator (n = 178); the rest were directors of nursing (n = 14), and other designees (eg, admissions director/coordinator, n = 17).

Survey Instrument and Measures

The goal of the survey was to ask nursing home administrators (or designated staff) about challenges admitting results for both short or long stay, from both hospital and community settings. The survey included respondent and nursing home characteristics (presence of specialized units/wings [physically separate sections of the facility designed to provide care to particular subpopulations], size [number of beds], ownership [private for-profit, private not-for-profit, government-owned], payer mix [percentage of residents using Medicaid, Medicare, private, or other sources of payment]), and questions about perceived difficulty with admitting and caring for

patients with particular clinical and social complexities. The survey included an open-ended question about the most challenging medical condition to provide care for. Following that, we defined 4 different types of patients with complex care needs (eg, patients with dementia, mental/behavioral health concerns, obesity, and medical complexity due to intravenous [IV] or wound care needs) and asked respondents to use a 5-point scale to rate perceived difficulty in admitting and caring for these patients, with 1 associated with not at all difficult and 5 associated with extremely difficult. These specific conditions were identified based on prior literature on medical barriers to nursing home care for rural residents.[11,17] We also created a collapsed categorization for not difficult (self-rated 1 or 2), neutral (self-rated 3), or difficult (self-rated 4 or 5) in order to identify facilities with the most difficulty. We also asked about specific challenges encountered for each type of condition via open response, and coded them into distinct conceptual categories using an iterative approach to summative content analysis.[34]

Analytic Approach

We first calculate descriptive characteristics of nursing homes in our respondent sample. We then calculate average "perception of difficulty" scores for each of the 4 complex patient conditions. Third, we sum the number of conditions each facility considered difficult (ie, self-rated a 4 or 5 out of 5 in difficulty), and present the distribution of those aggregated responses. Finally, we summarize the most prevalent challenges for each complex condition, and report the percent of facilities experiencing each of those challenges. Qualitative coding of open-ended responses was done in Excel by 1 team member, with checks for consistency and validity within the research team. Category names were derived from the text of open-ended answers, using frequently-endorsed codes.[34] Facilities with missing responses on any items were excluded from analysis of that item; no further exclusion criteria were used in analysis. This study was approved by the University of Minnesota Institutional Review Board.

Results

Table 1 shows descriptive statistics of the sample. The rural nursing facilities represented were spread across both noncore (56%) and micropolitan (44%) counties, with an average bed count of 82. The majority of facilities (58%) were owned by for-profit entities. Nearly 40% of respondents reported having another facility nearby, within 5 miles, but nearly one-fifth (17%) reported that the next nearest facility was more than 25 miles away. Almost 80% of facilities reported that fewer than half of their patient rooms were private). A minority of facilities had either a separate post-acute care unit (rather than integrated with long-term stay patients;

Table I. Descriptive Statistics.

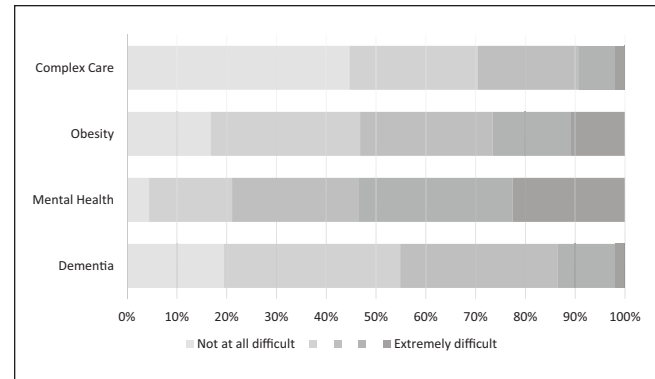| Characteristics	Frequency (%)
Rurality	
Micropolitan	44
Non-core	56
Bed count (M)	81.66
Ownership	
For profit	58
Not for profit	29
Government	13
Next closest skilled nursing facility	
≤5 miles	39
>5-10 miles	11
>10-25 miles	32
>25-50 miles	13
>50 miles	4
Private rooms	
<25%	58
25%-49%	18
50% or more	24
Post-acute care unit	37
Memory care unit	26
Payer mix*	
Medicaid	63
Medicare	16
Private pay/other	24

N = 209 skilled nursing facilities.
*Total does not add to 100%, as respondents could answer individual for each category and some residents used more than 1 payment type.

Figure I. Degree of difficulty serving residents with each condition.

38%) or a separate memory care unit (26%). Medicaid was the most common payer across facilities (63%).[1]

In open-ended responses, respondents shared what medical condition they find most challenging to provide care in their facility. The most common responses were dementia, Alzheimer's disease, and memory loss; mental and behavioral health issues; residents who need wound care, trach care, and/or IV antibiotics or tubing; and cardiac problems, obesity, and comorbidity. Multiple respondents mentioned a range of other conditions, including chronic obstructive pulmonary disease (COPD), Parkinson's disease, diabetes, and cancer.

When asked about challenges providing care for residents with specific conditions, more than half (53%) of all respondents stated that it is very/extremely difficult for their nursing home to provide high-quality care to residents with mental and behavioral health problems (with 22% reporting a difficulty level of 5 = extremely difficult), and 27% of respondents stated that providing high-quality care to residents with obesity was very/extremely difficult (see Figure 1). In contrast, fewer than 15% of respondents reported that serving residents with dementia or complex care needs was very or extremely difficult.

Most facilities (68%) responded that they experienced significant difficulty providing care for at least 1 complex condition (see Figure 2). More than 40% of facilities responded that only 1 condition was very/extremely difficult to provide care for, 19% of facilities struggled with 2 conditions, 7% with 3, and only 1 facility total (<1%) reported that all 4 conditions were very/extremely difficult to provide care for.

Table 2 shows the most frequently mentioned facility challenges for each condition type. For all but obesity, staffing was the most common challenge mentioned, with more than 40% of respondents reporting it as a challenge for complex conditions requiring IV and/or special wound care, mental and behavioral health problems, and dementia. (For obesity, it was the second most common challenge, at 26%.) Staffing challenges included difficulty recruiting and retaining staff, as well as difficulty keeping staff up to date with training and education for condition-specific care. Related to staffing challenges for mental and behavioral health, 1 administrator noted the importance of retaining consistent staff so that they can get to know the needs of individual residents, stating: "*There isn't a guide and every person is different. It [requires] interacting with the person and observing what happens on a day to day basis.*"

The most common challenge related to caring for residents with obesity was equipment and space. Specific challenges included having appropriate lifts, beds, equipment for transfers, and wide enough hallways and doorways. One respondent noted, "*current equipment limits us to accepting patients under 500 pounds.*" Another noted that it can be difficult to find "*the appropriate room size that they can get in and out of.*" Equipment and space were also mentioned as challenges for IV and wound care, as well as dementia. For the former, it was in the context of having appropriate equipment to provide 24/7 IV medications and other related supplies; for the latter, it was in the context of having designated space for people with memory loss.

Other common challenges included financial costs of serving residents with significant care needs, safety issues (related to staff injuries, falls, wandering, and safety of other residents), and having appropriate services and activities to engage residents and their families. For residents with IVs
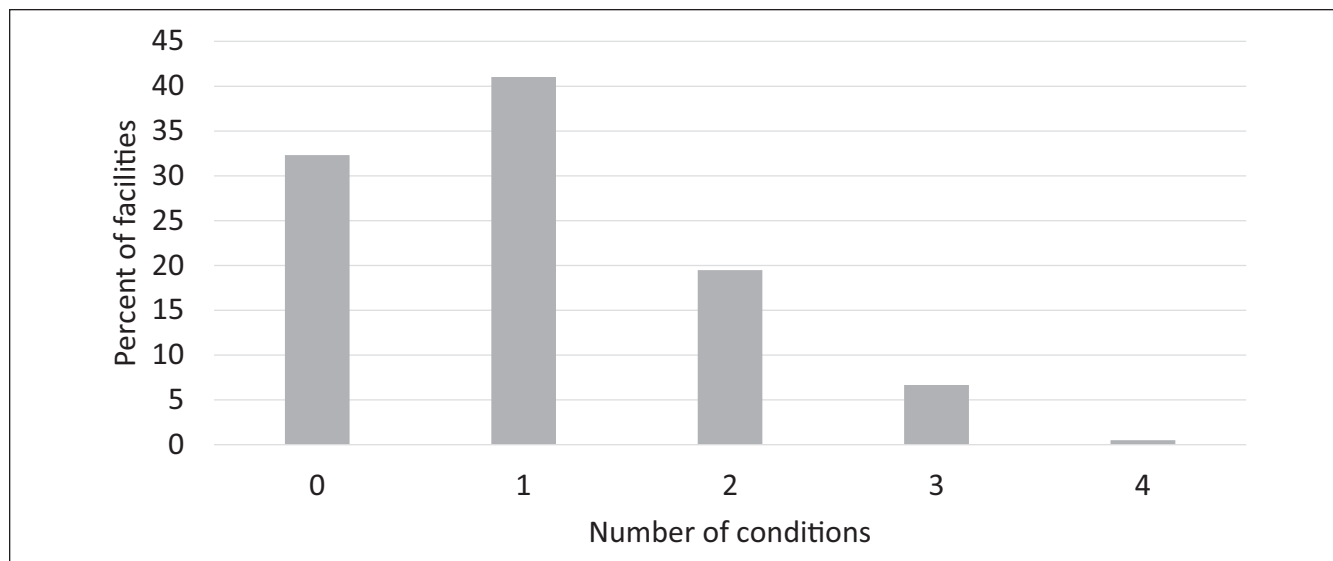
Figure 2. Number of conditions facilities rate as very/extremely difficult to care for.

Table 2. Biggest Challenges to Serving Residents with Each Condition.

Complex care		Obesity		Mental health		Dementia	
Challenge	%	Challenge	%	Challenge	%	Challenge	%
Staffing	43	Equipment and space	59	Staffing	42	Staffing	45
Costs	22	Staffing	26	Services	25	Safety	36
Equipment and space	10	Safety	11	Safety	18	Services	13
Time intensity	5	Costs	9	Social cohesion	9	Equipment and space	7

N = 209 skilled nursing facilities. Column totals do not add to 100%, as respondents could indicate multiple challenges for each condition and only the top 4 most frequent challenges are shown for each condition.

and wound care needs, time intensity was another frequently mentioned challenge. For residents with mental and behavioral health problems, respondents discussed challenges related to social cohesion with other residents.

Discussion

In this study, we used data from 209 rural nursing home administrators to shed light on what challenges they perceive to admitting residents with various clinically and socially complex conditions. When asked what medical conditions create the greatest challenges for providing high-quality care, respondents listed dementia, mental and behavioral health conditions, medically-complex conditions requiring high levels of care, and obesity, cardiac problems, and comorbidity. However, when asked specifically about the 4 conditions we focused on, nursing home administrators overwhelmingly reported the most challenges to providing high-quality care to residents with mental and behavioral health challenges. The next most challenging condition, according to rural nursing home administrators, was serving residents with obesity. Respondents reported relatively fewer concerns

about admitting residents with complex medical conditions (eg, those requiring IV antibiotics or wound care) and residents with dementia. While these conditions are not mutually exclusive, these results shed light on the type of conditions that pose the greatest barriers to rural nursing homes being able to admit residents. Such information is critically important as rural populations are aging faster, with poorer health outcomes, than their urban counterparts,[18,19,35] while health care and long-term services and supports become increasingly scarce in rural areas.[21,22]

Administrators focused primarily on staffing concerns, as well as space and equipment needs, that created key structural challenges to high-quality care across all complex patient groups. Staffing issues included recruiting, retaining, and training staff in their rural communities, especially staff with particular expertise in each condition or especially in cases when conditions require additional training (eg, wound care). While staffing is a widespread challenge throughout rural health care, including in nursing homes,[23,36,37] it is especially difficult to meet workforce needs for conditions requiring high levels of care. For residents with obesity, the need for specialized equipment—including lifts, wider beds, wider doorways,

and larger room spaces –may be cost-prohibitive for smaller rural facilities. Limited resource availability underlies both of these issues and puts patients in rural areas at greater risk of disruption or insufficiencies in care that could lead to an adverse event.[38]

Patients with complex care needs such as those examined in this study may ultimately be best served by more well-equipped nursing homes, many of which may be farther from their homes. For transitions from the hospital, this requires that hospital providers and staff be better informed about the environment and capabilities of possible nursing home locations as they work with patients and their families to decide on a discharge location.[7,14,39] However, placing patients far from their homes and communities may be disorienting for the resident and create additional barriers to loved ones visiting regularly,[22] particularly given transportation challenges in rural areas.[10,25] As a result, many patients and their families wish to return to their home community for nursing home care, even if it is not the best match for their clinical needs;[27] still others go without formal care services altogether if they are not available locally.[40] To better support these patients, structural investments are needed in rural areas. Policymakers could consider infrastructure grants and enhanced technical assistance to rural facilities to support investment in facility upgrades and workforce development for rural staff working in long-term care. These needs will only become more acute as rural communities continue to age.

Hospitals and health systems that receive a significant number of patients from rural and geographically distant locations also need to consider significant care delivery improvements for care pathways that span these distances. To the extent that hospitals are investing in transitional care processes—including on-site staffing, improved electronic information sharing, and performance data reporting—these efforts are typically focused on high-volume, geographically proximate nursing homes with which hospitals can see more return on investment.[28,29,41] While not all of these initiatives are feasible to extend broadly, hospitals could make investments with more widespread impact. For example, discharge planning teams can be better staffed, trained, and integrated, alongside family members, in to decisions around patient placement and preparation for transfer.[9] Hospitals can also consider standardized enhancements to how they make information available to receiving nursing homes, with a focus on completeness, timeliness, and usability of data made available.[8,9,42,43] This might include, for example, use of nursing home-tailored discharge summaries that include data elements to inform physical environment needs and a social and behavioral care plan. Finally, it is important to note that organizational strategies to improve coordination during care transitions have underrepresented and systematically excluded patients at highest risk of rehospitalization, which includes several of the patient groups in this study.[44] It is critical to study the specific structural and process improvements needed to meet the needs of clinically and socially complex patients, and to understand how these efforts can be adapted for equitable benefit in rural, more under-resourced communities.

Limitations

This study presents unique findings from a survey of rural nursing home administrators, a population working in an often resource-constrained environment. This was an exploratory, observational study, the results of which will benefit from additional research to increase the credibility, robustness, and transferability of the results to other rural nursing home settings.[45] Specifically, the results of this study should be considered in light of the following limitations. First, we asked nursing home administrators for their perceptions, but do not couple those with the perceptions of residents and staff. This may introduce response bias, however nursing home administrators have a unique and valuable perspective on nursing home operations. Second, because we asked about perceptions rather than objective measures of patient accommodation or challenges encountered, we do not know how perceptions of what is "difficult" may compare across respondents. Third, we do not know if responses from facilities that chose not to participate in the survey would have meaningfully changed our results. We did compare respondents and non-respondents on key organizational characteristics, and found few differences. Non-respondents were more likely to be in micropolitan rural counties and have larger facilities. If anything, this biases our results toward smaller, more rural facilities that may be especially under resourced. While this does not allow us to generalize to all rural facilities, it does help to shed light on the concerns of those facilities that may face the greatest challenges in serving medically and socially complex residents. Finally, we did not ask respondents directly about challenges providing end-of-life care, although such issues likely add complexity to the situations they described with each of the conditions we focused on. Future study is needed to better understand specific challenges rural facilities face in providing care to residents nearing death, as well as the benefits of hospice services in such situations.

Conclusion and Implications

As the population of rural areas ages and continues to face higher rates of chronic conditions and disability than urban areas, it is critically important to understand the challenges, strengths, and unique capacity constraints of long-term care providers in rural areas. In this study, we used survey data from more than 200 rural nursing homes to identify particular facility challenges related to serving residents with especially resource-intensive conditions: dementia, obesity, mental and behavioral health conditions, and medical complexity. Particular challenges were noted for mental and behavioral health and for obesity, with contributing factors including

limitations in staffing and equipment and space. Policy and health system solutions to these challenges require a mix of structural and workforce investment as well as improvements to transitional care practices that reach and support rural providers of post-acute and long-term care. Attention is urgently needed regarding how best to support rural residents in finding appropriate placement near their homes and communities, and in ensuring that long-term care providers are appropriately resourced to provide high-quality care.

Declaration of Conflicting Interests

Funding

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Note

1. This reflects payer mix for the total resident population, including both short-term and long-stay residents.

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