

inability to invest in needed clinical or technological infrastructure or staff shortages. On the other hand, the star rating component measures may be affected by community factors such as poor public transportation or limited social support services through causal pathways other than hospital quality. More exploration of why hospitals in stressed cities are found to have lower star ratings is essential.

We were only able to analyze the 150 cities in the stress ranking list and could not separate parts of large cities such as New York City, and thus we view our findings as a lower-bound of the estimate of the strength of the association. Future analyses could link star ratings to characteristics of communities within cities when hospitals have distinctly defined service areas.

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1. Evaluation of national distributions of Overall Hospital Quality Star Ratings. Centers for Medicare & Medicaid Services website. <https://www.cms.gov/Newsroom/MediaReleaseDatabase/Fact-sheets/2016-Fact-sheets-items/2016-07-21-2.html>. Published July 21, 2016. Accessed August 9, 2016.

2. Gu Q, Koenig L, Faerberg J, Steinberg CR, Vaz C, Wheatley MP. The Medicare Hospital Readmissions Reduction Program: potential unintended consequences for hospitals serving vulnerable populations. *Health Serv Res.* 2014;49(3):818-837.

3. Rajaram R, Chung JW, Kinnier CV. Hospital characteristics associated with penalties in the Centers for Medicare & Medicaid Services Hospital-Acquired Condition Reduction Program. *J Vasc Surg.* 2016;63(2):554.

4. Reames BN, Birkmeyer NJ, Dimick JB, Ghaferi AA. Socioeconomic disparities in mortality after cancer surgery: failure to rescue. *JAMA Surg.* 2014;149(5):475-481.

5. Herrin J, St Andre J, Kenward K, Joshi MS, Audet AM, Hines SC. Community factors and hospital readmission rates. *Health Serv Res.* 2015;50(1):20-39.

6. Bernardo R. 2016's most & least stressed cities in America. WalletHub. <https://wallethub.com/edu/most-least-stressed-cities/22759/#methodology>. Published July 19, 2016. Accessed August 9, 2016.

LESS IS MORE

Avoiding Hospitalizations From Nursing Homes for Potentially Burdensome Care: Results of a Qualitative Study

Nursing home residents are often hospitalized for care that has the potential to be burdensome, in the sense that the risks outweigh the expected benefits.¹ These hospitalizations offer little hope of improving quality of life or changing the course of illness and usually involve residents close to death who are vulnerable to iatrogenic harms. Certain facilities are more successful than others at preventing potentially burdensome hospitalizations. The reasons for their success, however, are poorly understood. We sought to explore the causes of these transfers and identify practices that help facilities avoid them.

Methods | We conducted a qualitative study involving Connecticut nursing homes with hospitalization rates in the top or bottom 10% from 2008 to 2010. We identified facilities using publicly available data (<http://www.ltcfocus.org>) and conducted in-depth, semistructured interviews with key staff members, using a standard interview guide, until theoretical saturation was reached; this occurred after the eighth facility visit and 31 interviews. Transcripts were analyzed according to the principles of grounded theory, using the constant comparative method.²

Table 1. Shared Barriers to Reducing Potentially Burdensome Hospitalizations

Theme	Representative Quotation
Families' beliefs about the hospital and nursing home	
Guilt pushes families to "do everything," which includes hospitalization	When someone is dying, [families] want them to have the last chance and that's what pushes them to send them. It's hard to decide, "I'm not sending mom to the hospital this last time." Because you're giving up. Essentially people will say that you're giving up. "You mean you didn't send her this time? You gave up." (Nurse practitioner, high-hospitalizing facility)
The nursing home's dual custodial and medical identity leads to the belief that it provides inferior care	They view us as like a rest home. There's not really medical care here. They think: "look at that person, they're sick, better get them to the ER"....The family member will be right there: "Nope! I just want my mother to go to the hospital. You guys are just a nursing home. That's what you do there. She can live there. That's her home but if she's sick she needs to go to the hospital." (Director of nursing, high-hospitalizing facility)
Nursing home structure and organization	
Clinicians are unavailable on nights and weekends	It's not a conversation that someone can have over the phone at 2-o'clock in the morning. Where a patient is decompensating during the day, that's when we're most successful at intervening and trying to prevent that hospitalization which isn't really going to benefit the patient. It's so frustrating when I come in on Monday morning and find out who got sent over the weekend. I just feel bad for the patient. Now they're getting poked and prodded and stuck, and nothing is going to change. (Nurse practitioner, low-hospitalizing facility)
Staff face difficult decisions in relative isolation	The burden falls on me to say: "Your mom or dad is not doing well, there's no chance of a meaningful recovery." I feel if I had some back up—it would be just so nice to have another really qualified internist to help with the tough calls. You might say, "what about Dr X, what does he think?" I would feel much more comfortable if I had somebody with me. I find that even though I'm a nice guy, board certified internal medicine, [families think]: "you're not a cardiologist or an -ologist." You're just a physician in a community nursing home." I'm looking for support and there is none. (Physician, low-hospitalizing facility)

Table 2. Different Approaches at Low- and High-Hospitalizing Facilities

Low-Hospitalizing Facilities	High-Hospitalizing Facilities
Case-by-Case Decision-Making vs a Default Pathway	
They see the hospitalization as, "Well, if there's one last glimmer, if there's one last thing." One of the things we talk to them about is, when you get to this end stage—because for many of our people it is the end stage—what's your goal? Is your goal treatment? Is your goal treatment with comfort? If your goal is comfort, then being treated in place is more likely to achieve that. (Social worker)	The policy here is that if we can treat them here then we will, [but] every time somebody is changed clinically—like they're sick—most of the nurses just call the doctor and tell them they're sick. Of course, the doctor doesn't really see the patient. The doctor will just say: "Okay, send them out." (Nurse)
I try to put whatever is going on with them in the context of the comorbid conditions they have and get from the family what they would expect or what they would want to happen at the hospital . . . I try to say out loud: "Does this make sense?" (Nurse practitioner)	When you have a patient who has a change of condition in a facility, if you ever really question if the patient should be in the hospital, you should do that—you should send the patient to the hospital if you question that. (Physician)
Trying to Change Families' Minds vs Deferring to Their Decisions	
The nurses will talk to [families], the social worker will talk to them, we'll have meetings . . . If we can't convince them—and we're not trying to convince anybody to die, but we want to make them comfortable and really look realistically at the picture—we'll often ask the APRN or the doctor to talk with them. . . . We're not trying to kill everybody. I don't want you to think we're trying to kill everybody. We just feel like it's the most comfortable for them. (Administrator)	It's a tricky dynamic as far as treating, sending, keeping, but overall I think the patient and the patient's family drive the decision-making. I give them all the options. . . . I don't think I have a huge influence on changing [their minds]. I think that has to happen within the family. (Nurse practitioner)
We've worked as hard as we can to educate [families] and I wouldn't say influence them, but if we do genuinely feel like it's not in their best interest, we'll work really hard to discourage someone who is making a bad decision. (Administrator)	Even if I think that the patient is at a point where there's not going to be much that they can do . . . I always end [the conversation] with: "But in the end it's your decision what you want to do." It's not my decision. Everyone has to make their own decision. (Physician assistant)

Results | Interviews occurred at 4 high-hospitalizing and 4 low-hospitalizing facilities and involved directors of nursing (8), facility administrators (7), social workers (6), physicians (2), advanced practice clinicians (5), and other staff (3).

Participants at all facilities recognized that residents were hospitalized for potentially burdensome care and identified a common set of barriers that made it difficult to avoid such transfers (Table 1). There were key differences in how staff at low- and high-hospitalizing facilities approached decisions about hospitalization. Participants at high-hospitalizing facilities described an algorithmic process and tended to leave complex choices about hospitalization to families. Those at low-hospitalizing facilities emphasized their involvement in case-by-case decision-making and were willing to disagree with family members and attempt to change their minds (Table 2).

Discussion | Participants in this qualitative study of nursing homes with high and low hospitalization rates encountered similar barriers to avoiding potentially burdensome hospitalizations. Staff at low-hospitalizing facilities, however, described a conviction that certain patients should not be hospitalized and felt a responsibility to help patients and families reach the same conclusion. They avoided decision-making algorithms and followed the "enhanced autonomy" model recommended by experts, in which medical personnel do not remain neutral but explore disagreements with patients in an "intense exchange of medical information, values, and experiences."^{3(p766)} They acknowledged how hard this was to do.

Our findings suggest that, to reduce potentially burdensome transfers, staff at less successful facilities will need to be encouraged to adopt similar attitudes and practices. How best to accomplish this kind of institutional culture change is unclear. The prevailing approach at the Centers for Medicare and Medicaid Services involves payment reform,⁴ but there is only modest evidence to suggest that financial incentives will change clinician behavior in the nursing home or improve facility quality.⁵ Another strategy, taken by the Interventions to Reduce Acute Care Transfers (INTERACT) program, involves

providing written materials to patients and clinicians, but facilities using INTERACT have had limited success in reducing hospitalizations for potentially burdensome care.⁶ While our study adds key information about the behaviors that help nursing homes avoid such transfers, research is needed to understand how to promote these behaviors more broadly.

Our work has several limitations. We performed interviews in Connecticut, which has a high number of nursing home beds per capita. We interviewed an advanced practice clinician at every facility but only a few physicians, who were on-site irregularly.

In summary, there were key differences in behavior toward potentially burdensome hospitalizations at nursing homes with high and low hospitalization rates. Work should focus on developing ways to encourage less successful facilities to adopt practices found at more successful ones.

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1. Ouslander JG, Lamb G, Perloe M, et al. Potentially avoidable hospitalizations of nursing home residents: frequency, causes, and costs. *J Am Geriatr Soc*. 2010; 58(4):627-635.
2. Miles MB, Huberman AM. *Qualitative Data Analysis: An Expanded Sourcebook*. 2nd ed. Thousand Oaks, CA: Sage Publications; 1994.
3. Quill TE, Brody H. Physician recommendations and patient autonomy: finding a balance between physician power and patient choice. *Ann Intern Med*. 1996;125(9):763-769.
4. Centers for Medicare and Medicaid Services. Initiative to reduce avoidable hospitalizations among nursing facility residents. 2016. <https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/InitiativetoReduceAvoidableHospitalizations/AvoidableHospitalizationsamongNursingFacilityResidents.html>. Accessed August 1, 2016.
5. Briesacher BA, Field TS, Baril J, Gurwitz JH. Pay-for-performance in nursing homes. *Health Care Financ Rev*. 2009;30(3):1-13.
6. Ouslander JG, Naharci I, Engstrom G, et al. Root cause analyses of transfers of skilled nursing facility patients to acute hospitals: lessons learned for reducing unnecessary hospitalizations. *J Am Med Dir Assoc*. 2016;17(3):256-262.

COMMENT & RESPONSE

Sex Bias—Beyond Pay Inequity

To the Editor The Original Investigation by Jena and colleagues¹ concerning sex differences in physician salaries published in a recent issue of *JAMA Internal Medicine* is objective documentation of the ongoing sex bias in academic medicine. In a survey of National Institutes of Health career development awardees, Jagsi and colleagues² reported that almost one-third of women report sexual harassment and almost two-thirds of women report sex bias in professional advancement. These analyses document, with promises of confidentiality, the outcomes and places of sex bias. However, we need to move beyond the reporting of statistics to share the emotional stresses and the subsequent loss of women's aspirations for influential leadership, which either fade or are obstructed. More than ever, we need transformative leaders of both sexes to meet the challenges of health care.

Among all academic medical centers, there is absolutely no dearth of appointed diversity leaders, training modules, and goals to decrease sex biases. There are mission statements that establish the purpose to transform the academic culture to be more inclusive and diverse. Women faculty leadership forums often host seminars on how to negotiate for salary equity and how to manage conflict. However, if we accept the recent publications in *JAMA Internal Medicine*¹ and *JAMA*² as evaluations of the success of these programs, we must conclude our current efforts are not effective. Change will not occur with more diversity goals or only women "leaning in." We must work collectively across both sexes to sensitize and personalize the effects of such continued biases. Men should reflect on their behaviors and recognize in themselves the biases they may harbor.

Collectively, male leaders need to transform their behaviors so that women will have optimal opportunities to share their gifts for the betterment of health care. The necessary

change will begin when all men start owning their role in the change we aspire to see in the world. I am grateful for male colleagues who encouraged me in my early career, who mentored me and were instrumental in my career development, and who supported me to openly challenge and contribute to clinical research. These men and other men with similar values and integrity must serve as role models and mentors for the next generation of male leaders in our mission of creating a culture where all sexes and genders contribute and thrive.

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1. Jena AB, Olenski AR, Blumenthal DM. Sex differences in physician salary in US public medical schools. *JAMA Intern Med*. 2016;176(9):1294-1304.
2. Jagsi R, Griffith KA, Jones R, Perumalswami CR, Ubel P, Stewart A. Sexual harassment and discrimination experiences of academic medical faculty. *JAMA*. 2016;315(19):2120-2121.

A Perspective on Out-of-Pocket Spending

To the Editor Understanding out-of-pocket spending is critical to understanding health care costs in the United States. We applaud the efforts of Adrion et al¹ as an important contribution to understanding the out-of-pocket spending of the commercially insured population younger than 65 years. The commercially insured comprise over 50% of the nonelderly US population and, as demonstrated by Adrion et al, out-of-pocket spending on inpatient services can be substantial.²

Over the past 4 years, the Health Care Cost Institute's (HCCI) trend reporting (covering the years 2008-2014) for the employer-sponsored insurance population have provided a unique perspective into the commercially insured population. In reiterating the importance of out-of-pocket costs research, we think about the broader context of health care cost trends within which the findings of Adrion and colleagues¹ can be better understood.

First, Adrion and colleagues¹ found a 37% increase in total cost sharing per inpatient hospitalization between 2009 and 2013. In our reports, we found a similar increase in out-of-pocket spending on hospitalizations.³ However, also consistent with Adrion et al, over the same time period, there was approximately a 10% drop in hospitalizations. This likely indicates a shift in where people receive care. Additional analyses accounting for more locations where patients receive care are important to understanding the complete out-of-pocket cost burden. Moreover, understanding how out-of-pocket costs in outpatient facilities changed over the same period is important to understanding how other health care providers respond to changes.

Second, an analysis of only inpatient facility claims excludes separately billed services, such as some physician services. These fees may produce substantial out-of-pocket bills