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The Revolving Door Of Rehospitalization From Skilled Nursing Facilities

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ABSTRACT Almost one-fourth of Medicare beneficiaries discharged from the hospital to a skilled nursing facility were readmitted to the hospital within thirty days; this cost Medicare $4.34 billion in 2006. Especially in an elderly population, cycling into and out of hospitals can be emotionally upsetting and can increase the likelihood of medical errors related to care coordination. Payment incentives in Medicare do not encourage providers to coordinate beneficiaries' care. Revising these incentives could achieve major savings for providers and improved quality of life for beneficiaries.

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Alarming numbers of Medicare beneficiaries are readmitted to hospitals shortly after being discharged. Stephen Jencks and colleagues[1] found that almost one-fifth (19.6 percent) of all Medicare beneficiaries were rehospitalized within thirty days in 2004. Approximately 90 percent of these rehospitalizations were unplanned. They cost the Medicare program an estimated $17.4 billion.

Many Medicare beneficiaries are discharged from hospitals to receive postacute care—that is, recuperative or rehabilitative services delivered by a skilled nursing facility, home health care agency, or inpatient rehabilitation facility. Roughly 40 percent of Medicare beneficiaries are discharged to a postacute setting, and roughly half of these enter a nursing home or distinct part of a nursing home devoted to providing skilled nursing care or rehabilitation services.[2]

Both Medicare readmissions and the use of postacute services vary greatly among geographic regions. In an analysis of thirty-day Medicare spending following a hospital discharge, the Medicare Payment Advisory Commission (MedPAC)[3] found that much of the observed variation between hospitals was related to readmissions and the use of postacute services such as skilled nursing facility care. Although the analysis did not consider the effect of this spending on quality of care, some of this variation presumably reflects inappropriate readmissions and inefficient use of postacute services.

In this context, Medicare policymakers have become interested in changing the payment incentives around hospital readmissions and postacute care use. Medicare now pays for all readmissions except when patients are rehospitalized within twenty-four hours after discharge for the same condition for which they were originally hospitalized. Under current Medicare payment rules, hospitals, skilled nursing facilities, and other providers lack incentives to coordinate beneficiaries' care and to address wasteful rehospitalizations that occur as a result of inadequate clinical information sharing, inappropriate postacute placements, or other inefficiencies across providers.[4–6]

Moreover, for nursing home residents who have lived in a facility for some time, this issue is further magnified, given Medicaid's role as the primary payer of (long-term) nursing home care. Because Medicare covers short-stay skilled nursing facility and hospital services, both providers and payers have perverse incentives to shift costs across settings for dually eligible beneficiaries (that is, those eligible for both Medicare and Medicaid).[7]

One potential solution would be a bundled Medicare payment system for hospital episodes to encompass the base hospitalization, readmissions, physician services, postacute care, and

other Medicare-covered services. Such a system has been proposed by MedPAC[3] and the congressional health reform legislation.[8] This type of payment system would provide a single entity with the incentive to reduce inefficient readmissions, because readmissions would not generate additional revenue. Other proposed Medicare reforms such as nursing home pay-for-performance have targeted rehospitalizations from the skilled nursing facility as a source of potential cost savings.

Little research documenting the frequency and costs of rehospitalization has been published. Moreover, little is known about the underlying nature of these rehospitalizations or how they vary geographically. This paper aims to fill that gap. Using Medicare inpatient claims data from 2000–06, it explores three key questions related to rehospitalization from the skilled nursing facility. (1) What is the frequency and cost of such rehospitalizations within thirty days after hospital discharge, for both nursing home residents and beneficiaries living in the community? (2) How do these rehospitalizations vary across states? (3) What is the correlation between the rate of skilled nursing facility rehospitalizations and other Medicare spending?

Background On Skilled Nursing Facility Rehospitalizations

Over the past several decades, the role of the nursing home has changed dramatically. It has been transformed from a purely residential setting, where predominantly older, cognitively impaired, and functionally dependent people lived, to a postacute care facility providing skilled care to medically complex patients often discharged directly from intensive care units. To qualify for Medicare skilled nursing facility services, a beneficiary must require daily skilled nursing or rehabilitative therapy services, generally within thirty days of a hospital stay lasting at least three days, and must be admitted to the nursing home because of a condition related to that hospitalization. Medicare offers full coverage on the first 20 days and partial coverage for days 21–100. Based on the Minimum Data Set, a nursing home resident assessment instrument mandated by the Centers for Medicare and Medicaid Services (CMS), only 307,000 of the roughly 1.1 million unique individuals admitted to a Medicare/Medicaid-certified nursing home for the first time in 2005 were deemed "long-stayers" (that is, they were still in the facility ninety days later).[9] This suggests that for many, the nursing home has become a "way station" and not necessarily a long-term residence.

Part of the turnover of patients within nursing homes relates to rehospitalizations. Skilled nursing facility rehospitalizations can be grouped into two major categories based on whether the base hospitalization occurred from the community or from a nursing home (see Exhibit 1).

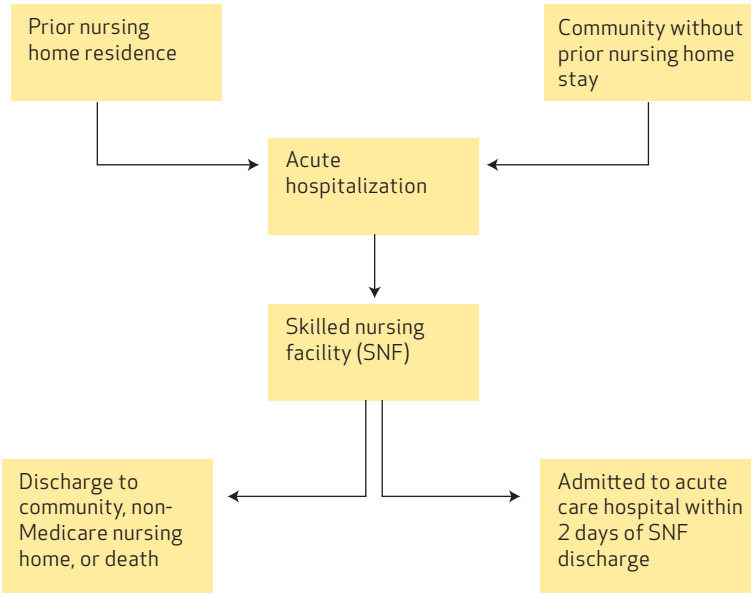
The first type consists of people admitted from home to a hospital, then discharged to a skilled nursing facility for postacute services, then readmitted to the hospital. Such patients, sometimes referred to as "bounce-backs," are what policymakers often have in mind when they contemplate action to curb skilled nursing facility rehospitalizations. From a policy perspective, a key issue is distinguishing between the roles of each facility in determining "accountability" for such patients. For example, if a patient is readmitted in the immediate twenty-four to forty-eight hours following hospital discharge, the quality of hospital care may be strongly implicated. With a longer period from discharge (such as thirty, sixty, or ninety days), the role of the skilled nursing facility's care gains greater prominence than that of the care received in the hospital. As a person stays longer in a skilled nursing facility, the Medicare benefit is exhausted, and Medicaid or out-of-pocket payments usually cover the costs of care.

The second type of skilled nursing facility rehospitalization originates among people who were recently nursing home residents. Following a hospitalization, such patients return to the nursing home under the skilled nursing facility benefit, only to be rehospitalized. Medicaid often covered the long-term care of such patients before they entered the hospital the first time. However, the initial hospitalization, posthospital skilled nursing facility stay, and subsequent rehospitalization are reimbursed by Medicare. Thus, although Medicare pays for nursing home residents' hospitalizations and skilled nursing facility care, their return to the hospital may reflect failures in care processes as a result of Medicaid payment policies.[7]

Most Medicare-paid nursing home stays occur in a common facility alongside Medicaid-paid stays. Nationally, Medicaid covers about 50 percent of nursing home expenditures and roughly 70 percent of bed-days. Research has generally supported the idea that nursing home quality is a common good within facilities, regardless of payer.[10,11] Specifically, the care of long-stay Medicaid residents and short-stay Medicare skilled nursing facility patients is linked through the facility's administration, staffing, culture, and other shared features. Thus, Medicaid's investment in common facility resources such as staffing affects the likelihood not only of the initial hospitalization but also of skilled nursing facility rehospitalization.

EXHIBIT 1

Rehospitalization From Skilled Nursing Facilities



SOURCE Authors' analysis.

On the other hand, nursing homes that invest in the clinical services necessary to reduce the likelihood of hospitalization predominantly generate savings for Medicare, while Medicaid often must pay for the increased cost of care in the nursing home. For example, research suggests that states with more generous Medicaid nursing home payment rates have fewer hospitalizations among long-stay residents.[12]

Methods

Medicare inpatient and skilled nursing facility claims and eligibility data, as well as Minimum Data Set assessments for people in a nursing home (with or without a skilled nursing facility episode), were obtained under CMS data use agreements (no. 18900 and no. 19106). We identified all skilled nursing facility episodes over the period 2000–06 that were within thirty days of hospital discharge prior to the skilled nursing facility admission. To be classified as a rehospitalization in our study, the readmission would have to occur within thirty days of the original hospital discharge. We used this cutoff to make our estimates more comparable with earlier research.[1,3]

We also determined whether beneficiaries were discharged from a skilled nursing facility because of a Medicare rehospitalization within two days of that discharge. People with a skilled nursing facility episode that ended after two days without a hospitalization were considered not to have been rehospitalized even though they may have been rehospitalized subsequently. Thus, we ultimately counted only those skilled nursing facility rehospitalizations that occurred both within thirty days of the initial hospital discharge and within two days of skilled nursing facility discharge.

Based on Medicare inpatient claims, we determined the total Medicare reimbursements associated with the identified rehospitalization episode, including all reimbursements from all claims making up the rehospitalization. All skilled nursing facility episodes were stratified based on whether the beneficiary had a Minimum Data Set assessment or skilled nursing facility stay within ninety days *before* the date of skilled nursing facility admission.

Rehospitalizations were assigned to the calendar year in which the skilled nursing facility episode began even though the rehospitalization may have occurred in the next year. We separately calculated annual rehospitalization rates for those skilled nursing facility episodes following a qualifying hospital stay that were preceded by being in a nursing home and those that were not. We then calculated the rates of rehospitalization and the Medicare hospital reimbursements asso-

ciated with those events during 2006 by state. We excluded Alaska, Hawaii, and other U.S. territories because of the small number of skilled nursing facilities in these areas. State-level analyses focus on 2006 because patterns of interstate variation across all years were similar.

Finally, using the online *Dartmouth Atlas of Health Care*,[13] we downloaded state-level estimates of the number of different Medicare physician claims that were observed in the last two years of life. This measure serves as a proxy for resource use that is unrelated to hospital care, and it provides an indicator of whether the geographic patterns of skilled nursing facility rehospitalizations that we observed were related to broader measures of resource use in the population of chronically ill Medicare beneficiaries. These data were summarized over all fee-for-service beneficiaries who died between 2002 and 2005. We then correlated these state-level measures of multiple physician use with the overall rate of skilled nursing facility rehospitalizations in 2006.

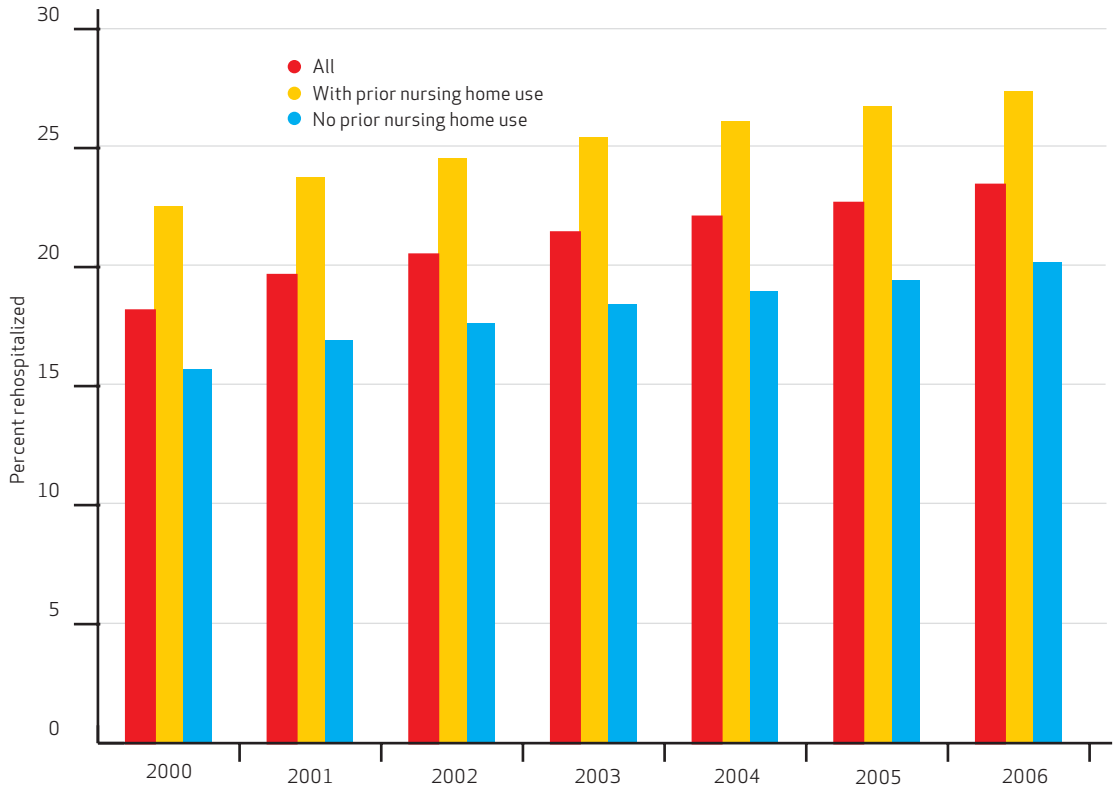
Results

The number of skilled nursing facility episodes per year ranged from 1.3 million in 2000 to 1.79 million in 2006. The overall proportion of skilled nursing facility episodes ending in a hospitalization within thirty days of the original hospital discharge rose from 18.2 percent in 2000 to more than 23.5 percent in 2006 (Exhibit 2). Thus, the rate of skilled nursing facility rehospitalization grew 29 percent over the study period. In each year, the likelihood of rehospitalization was higher among those who had previously been in a nursing home than for those who had not. In 2006, for example, the rehospitalization rate was 26.8 percent for those who had previously been in a nursing home and 19.4 percent for those who previously resided in the community.

Exhibit 3 presents state-specific data on the rates of rehospitalization and the associated reimbursements. In 2006 there were 1.79 million skilled nursing facility episodes, of which 419,669 (23.5 percent) resulted in a rehospita-

EXHIBIT 2

Trends In Rehospitalization Rates From Skilled Nursing Facilities: 2000–2006



SOURCE Authors' calculations using Medicare inpatient and skilled nursing facility claims and eligibility data and the Minimum Data Set, Centers for Medicare and Medicaid Services.

EXHIBIT 3

Frequency And Cost Of Skilled Nursing Facility (SNF) Rehospitalizations, By State, 2006

State	Number of SNF episodes	Percent rehospitalized	Total rehospitalization payments ($ millions)	Percent of SNF episodes with prior NH stay rehospitalized	Rehospitalization payments with prior NH stay ($ millions)
Alabama	30,143	22.2	56.67	25.6	26.81
Arkansas	19,584	24.1	42.78	25.6	21.63
Arizona	16,862	20.3	36.99	25.1	14.45
California	122,477	23.8	425.11	29.1	227.05
Colorado	17,032	17.6	30.63	21.4	13.20
Connecticut	38,061	23.4	93.20	28.6	50.01
District of Columbia	2,651	24.1	9.69	29.3	4.95
Delaware	5,743	22.3	13.00	25.7	5.68
Florida	137,144	23.4	283.89	28.0	140.91
Georgia	35,777	23.2	75.91	25.6	38.92
Iowa	20,472	16.3	28.12	17.1	14.43
Idaho	6,135	16.4	9.41	18.9	3.54
Illinois	104,619	26.9	280.00	30.9	156.20
Indiana	50,810	22.4	110.68	25.7	53.81
Kansas	16,248	19.9	28.44	21.2	14.79
Kentucky	31,177	24.9	66.94	28.3	35.33
Louisiana	23,690	28.2	74.14	28.8	46.88
Massachusetts	60,000	22.6	146.73	28.0	76.36
Maryland	43,175	26.4	170.32	32.1	87.68
Maine	10,862	16.9	16.92	20.4	6.68
Michigan	65,477	25.8	175.35	30.2	85.26
Minnesota	30,164	19.1	54.42	23.1	25.03
Missouri	43,162	23.9	90.86	26.6	49.73
Mississippi	16,769	28.1	40.49	31.4	23.76
Montana	5,295	15.7	7.12	17.1	2.89
North Carolina	51,134	21.2	95.19	24.9	43.01
North Dakota	4,082	16.6	6.05	16.9	2.55
Nebraska	12,480	18.6	22.31	20.2	10.48
New Hampshire	7,934	17.7	13.06	20.8	6.33
New Jersey	85,079	26.1	238.21	30.5	132.28
New Mexico	5,101	18.3	9.82	22.1	3.72
Nevada	5,896	22.8	19.21	26.1	7.55
New York	114,243	25.3	348.36	29.5	195.00
Ohio	109,838	24.0	249.44	28.1	129.28
Oklahoma	17,927	25.7	45.65	27.5	22.99
Oregon	11,294	17.4	18.84	22.1	7.63
Pennsylvania	92,729	22.5	198.08	25.9	99.08
Rhode Island	7,614	23.9	17.41	28.4	9.30
South Carolina	22,312	22.0	43.46	26.3	19.80
South Dakota	4,494	16.3	6.38	17.4	3.56
Tennessee	42,370	25.0	90.42	28.9	45.72
Texas	106,433	25.1	301.11	27.7	155.87
Utah	8,380	15.1	12.99	19.2	4.58
Virginia	44,250	22.6	83.51	26.7	38.49
Vermont	3,280	15.7	5.14	17.0	2.17
Washington	26,685	19.7	55.53	24.2	23.76
Wisconsin	37,424	18.8	65.43	21.3	30.33
West Virginia	12,741	24.3	27.25	27.1	12.13
Wyoming	2,223	16.1	3.56	18.9	1.76
Total	**1,789,472**	**23.5**	**4,344.23**	**26.8**	**2,233.35**

SOURCE Authors' calculations using Medicare inpatient and skilled nursing facility claims and eligibility data and the Minimum Data Set, Centers for Medicare and Medicaid Services.

lization within thirty days. Total Medicare reimbursements associated with these rehospitalizations exceeded $4.34 billion, and the average Medicare payment per rehospitalization was $10,352. The rehospitalization of those who had previously been in a nursing home accounted for $2.23 billion (or 51.4 percent) of total expenditures (Exhibit 3), yet they accounted for only 806,017 (or 45.0 percent) of total skilled nursing facility episodes (data not shown). The overall rate of thirty-day skilled nursing facility rehospitalization varied greatly by state in 2006. Only 15.1 percent of 8,380 skilled nursing facility episodes in Utah had a rehospitalization, for example, whereas 28.2 percent of the 23,690 skilled nursing facility episodes in Louisiana were rehospitalized. In nine states, thirty-day rehospitalization rates exceeded 25 percent; likewise, in nine states, rates were below 17 percent.

Given the large interstate differences, we sought to understand how skilled nursing facility rehospitalizations varied with other aspects of health care spending on Medicare beneficiaries. Because hospital costs make up such a large proportion of total Medicare spending, particularly among chronically ill populations like those using skilled nursing facility care, we contrasted state-level skilled nursing facility rehospitalization rates with *Dartmouth Atlas* data on the number of physician visits per Medicare beneficiaries in the last two years of life over the reasonably contemporaneous period of 2002–05. Our analyses suggest a very strong relationship between the number of physician visits and the rate of thirty-day skilled nursing facility rehospitalization (Pearson and Spearman correlation coefficient = 0.79).

Discussion

The results presented here suggest that skilled nursing facility rehospitalizations have been growing in frequency, they are quite costly, and they vary considerably across regions of the United States. During 2000–06, the rate of skilled nursing facility rehospitalization grew by 29 percent. By 2006, more than one-fifth (23.5 percent) of all hospital discharges to a skilled nursing facility returned directly to the hospital, at a total cost of $4.34 billion per year to the Medicare program. In attempting to understand the substantial variation across regions, we observed a strong correlation between skilled nursing facility rehospitalizations and physician visits per Medicare beneficiary in the last two years of life. These results suggest that the propensity to hospitalize and use other Medicare services is often a local-area phenomenon.

Although certain skilled nursing facility rehospitalizations are unavoidable, previous research has suggested that a high proportion occur for conditions that are preventable. Specifically, MedPAC[14] has found that five conditions—congestive heart failure (CHF), respiratory infection, urinary tract infection (UTI), sepsis, and electrolyte imbalance—for which rehospitalization is potentially avoidable account for 78 percent of all thirty-day skilled nursing facility rehospitalizations. When we apply this rate to our aggregate cost figure, it suggests that Medicare spent $3.39 billion (78 percent of $4.34 billion) in 2006 on potentially avoidable skilled nursing facility rehospitalizations. Moreover, entry and reentry into skilled nursing facilities and hospitals is known to introduce a number of negative health outcomes associated with medical errors as well as the stressors of the hospitalization experience known to cause delirium and functional decline.[15,16]

From a policy perspective, the key is to provide skilled nursing facilities with the resources and incentives to avoid these rehospitalizations. Toward this end, this paper helps illustrate three important lessons for policymakers.

First, because Medicare pays skilled nursing facilities and hospitals on a fee-for-service basis, there is little incentive for either sector to worry about cost shifting or inefficient resource use. As our paper suggests, the cost implications of patients' entry and reentry into hospitals and skilled nursing facilities are huge.

Second, not all skilled nursing facility rehospitalizations relate to the same underlying policy factors. For example, we have made the distinction between rehospitalizations among people previously residing in the community relative to those with prior nursing home use. Rehospitalizations among both groups are frequent and costly, but skilled nursing facility rehospitalizations among people who previously resided in the community will predominantly occur in hospital-based facilities or other skilled nursing facilities specializing in Medicare-financed skilled nursing facility care, whereas rehospitalizations among patients with prior nursing home use will often occur from facilities with high levels of Medicaid-financed care. In the latter case, policymakers may also want to consider the importance of state Medicaid nursing home policies for the Medicare postacute skilled nursing facility population.[7] For example, the generosity of Medicaid payment rates and the presence of bed-hold policies, which pay nursing homes to reserve the beds of Medicaid residents who are in an acute hospitalization, have been shown to influence skilled nursing facility hospitalizations.[12]

Finally, given the strong correlation between skilled nursing facility rehospitalizations and Medicare physician use in the last two years of life, our results suggest that rehospitalizations are likely to be strongly influenced by local-area factors such as provider norms, practice patterns, bed availability, and presence and willingness to use hospice.

Policy reforms under consideration to address the high rate of skilled nursing facility rehospitalizations include both systemwide and facility-specific initiatives. In terms of broader reforms, the idea of bundling Medicare payment across providers around a hospital episode has gained considerable traction among Medicare policymakers.[3,8] The advantage of this approach is that it encourages efficiency and care coordination within an episode to avoid unnecessary rehospitalizations and other wasteful spending.

In terms of efforts focused specifically at skilled nursing facility rehospitalization, the CMS began the three-state randomized Nursing Home Value-Based Purchasing demonstration in July 2009. In conjunction with other quality dimensions (such as staffing, survey deficiencies, and quality measures based on the Minimum Data Set), nursing homes with lower avoidable hospitalization rates will be rewarded with higher incentive-based payments.

By law, this demonstration must be budget-neutral: for example, Medicare performance payments to nursing homes with lower hospitalization rates must be balanced against the savings to Medicare from reduced hospitalizations. From the 2006 state-specific data presented in Exhibit 3, the high rate of thirty-day skilled nursing facility rehospitalization in the three participating states—Arizona (20.3 percent), New York (25.3 percent), and Wisconsin (18.8 percent)—suggests the real potential for the Nursing Home Value-Based Purchasing demonstration to generate offsetting savings for the purposes of rewarding nursing homes.

Although payment reforms such as bundling and pay-for-performance have promise, skeptics have raised a range of potential issues. These include the increased incentives for selection of the most profitable patients, withholding of patient care, so-called upcoding (that is, coding patients' conditions so that they trigger higher reimbursements), and fraud, along with the technical difficulties of adjusting for the severity of patients' illnesses and measuring and monitoring quality. Our results underscore two other considerations: (1) a Medicare-only solution will not address the role of state Medicaid policies in skilled nursing facility rehospitalizations; and (2) local behavioral norms may be difficult to target with payment incentives alone.

In regard to the first issue, the Medicare-only focus of payment reforms such as bundling may distort behavior in facilities caring for a sizable proportion of long-stay Medicaid residents. As noted, we observed higher Medicare skilled nursing facility rehospitalization rates among people with immediate prior nursing home stays. In many of these nursing homes, the rehospitalization of Medicare skilled nursing facility patients may relate closely to the generosity and method of Medicaid payment and the share of Medicaid residents within the nursing home. State Medicaid programs have little incentive to adopt policies that lower Medicare hospital and skilled nursing facility spending. Bundling could be expanded to include Medicaid, but the coordination costs and the political capital needed to do so would be very high. In many regards, some type of Medicare-Medicaid prepaid, or capitated, model might be the best approach to aligning broader incentives across multiple payers and providers. However, very few providers and patients have been willing to "lock in" to capitated models with the frail elderly and disabled because of the perceived risk. As such, their potential success on a broader scale may be limited.

In regard to the second issue, variation across areas in skilled nursing facility rehospitalizations suggests that payment reform might be one of several potential measures that could help curb inefficient service use. Interestingly, even after case-mix and demographics are adjusted for, the variation across areas is not simply a function of the rate of potentially avoidable hospitalizations.[12] That is, some of the variation in rehospitalizations across areas is also present across conditions that are not considered to be avoidable. This result speaks to the strong area norms such as practice styles and the supply of providers that extend beyond payment and other financial considerations. Although strong Medicare financial incentives may lessen the variation across areas, it may make sense to couple payment incentives with other systemwide interventions such as spending benchmarks, shared provider-patient decision making, and the promotion of centers of medical excellence.[17]

In summary, demonstrations of these policy models are needed, because each has considerable technical and practical implementation challenges that could undermine their effectiveness. As policymakers design these demonstrations, we encourage them to consider the heterogeneity of Medicare rehospitalizations and the important role of local provider norms. Although several Medicare reforms under recent discussion moved beyond specific providers to consider the broader system, our findings sug-

gest that a true system-level reform must extend beyond Medicare and must consider more than simply financial incentives. ■

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NOTES

1 Jencks SF, Williams MV, Coleman EA. Rehospitalizations among patients in the Medicare fee-for-service program. N Engl J Med. 2009;360 (14):1418–28.
2 Agency for Healthcare Research and Quality. HCUPnet. 2009 [cited 2009 July 21]; Available from: http://hcupnet.ahrq.gov
3 Medicare Payment Advisory Commission. Report to the Congress: Medicare payment policy. Washington (DC): MedPAC; 2008 Jun.
4 Naylor MD, Brooten D, Campbell R, Jacobsen BS, Mezey MD, Pauly MV, et al. Comprehensive discharge planning and home follow-up of hospitalized elders: a randomized clinical trial. JAMA. 1999;281 (7):613–20.
5 Coleman EA, Parry C, Chalmers S, Min SJ. The care transitions intervention: results of a randomized controlled trial. Arch Intern Med. 2006;166(17):1822–8.
6 Coleman EA, Mahoney E, Parry C. Assessing the quality of preparation for posthospital care from the patient's perspective: the care transitions measure. Med Care. 2005;43 (3):246–55.
7 Grabowski DC. Medicare and Medicaid: conflicting incentives for long-term care. Milbank Q. 2007;85 (4):579–610.
8 See, for example, the Patient Protection and Affordable Health Care Act (HR 3590) or the yet unnamed HR 3962.
9 Mor V, Zinn J, Gozalo P, Feng Z, Intrator O, Grabowski DC. Prospects for transferring nursing home residents to the community. Health Aff (Millwood). 2007;26(6):1762–71.
10 Grabowski DC, Gruber J, Angelelli JJ. Nursing home quality as a common good. Rev Econ Stat. 2008;90(4):754–64.
11 Konetzka RT, Norton EC, Sloane PD, Kilpatrick KE, Stearns SC. Medicare prospective payment and quality of care for long-stay nursing facility residents. Med Care. 2006;44(3):270–6.
12 Intrator O, Grabowski DC, Zinn J, Schleinitz M, Feng Z, Miller S, et al. Hospitalization of nursing home residents: the effects of states' Medicaid payment and bed-hold policies. Health Serv Res. 2007;42 (4):1651–71.
13 Dartmouth Atlas Project. Data tables. In: Dartmouth atlas of health care [Internet]. Hanover (NH): Dartmouth Institute for Health Policy and Clinical Practice; 2009 [cited 2009 Jun 19]; Available from: http://cecsweb.dartmouth.edu/atlas08/datatools/datatb_s1.php
14 Donelan-McCall N, Eilersen T, Fish R, Kramer A. Small patient population and low frequency event effects on the stability of SNF quality measures. Washington (D.C.): Medicare Payment Advisory Commission; 2006.
15 Coleman EA, Min SJ, Chomiak A, Kramer AM. Posthospital care transitions: patterns, complications, and risk identification. Health Serv Res. 2004;39(5):1449–65.
16 Teno JM, Mitchell SL, Skinner J, Kuo S, Fisher E, Intrator O, et al. Churning: the association between health care transitions and feeding tube insertion for nursing home residents with advanced cognitive impairment. J Palliat Med. 2009;12 (4):359–62.
17 Wennberg JE, Fisher ES, Skinner JS. Geography and the debate over Medicare reform. Health Aff (Millwood). 2002;21:w96–114.