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Issue Brief

Higher Readmissions at Safety-Net Hospitals and Potential Policy Solutions

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ABSTRACT: The Hospital Readmissions Reduction Program (HRRP), established by the Affordable Care Act, ties a hospital's payments to its readmission rates—with penalties for hospitals that exceed a national benchmark—to encourage hospitals to reduce avoidable readmissions. This new Commonwealth Fund analysis uses publicly reported 30-day hospital readmission rate data to examine whether safety-net hospitals are more likely to have higher readmission rates, compared with other hospitals. Results of this analysis find that safety-net hospitals are 30 percent more likely to have 30-day hospital readmission rates above the national average, compared with non–safety-net hospitals, and will therefore be disproportionately impacted by the HRRP. Policy solutions to help safety-net hospitals reduce their readmission rates include targeting quality improvement initiatives for safety-net hospitals; ensuring that broader delivery system improvements include safety-net hospitals and care delivery systems; and enhancing bundled payment rates to account for socioeconomic risk factors.

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OVERVIEW

While readmitting patients to the hospital within a short time period may be appropriate in certain cases, hospital readmissions generally occur too frequently and are costly and often avoidable.^{1,2,3,4} Reducing avoidable hospital readmissions presents an opportunity to achieve the "triple aim" of improving population health and patients' experiences of care while simultaneously reducing health care costs.⁵ Recognizing this, over the past decade, policymakers have implemented various interventions that aim to reduce readmissions.

One recent effort is the Hospital Readmissions Reduction Program (HRRP), established by the Patient Protection and Affordable Care Act,⁶ which ties hospital payments to readmissions metrics to encourage hospitals to reduce readmission rates. Under the HRRP, as of October 2012, the Centers for Medicare

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and Medicaid Services (CMS) is reducing Medicare payments to hospitals that perform worse than the national average on risk-adjusted 30-day hospital readmission rates for patients discharged with acute myocardial infarction (AMI, or heart attack), heart failure, or pneumonia.⁷ The penalties are capped. In 2013, the maximum penalty is 1 percent of the total amount a hospital would normally receive in Medicare payments for the year; this maximum will increase to 3 percent in 2015.

Recently, CMS published readmissions adjustment factorⁱ data for all individual hospitals. A subsequent analysis of these data by Kaiser Health News found hospitals that serve large numbers of low-income patients are more likely to have the lowest adjustment factor, and thus receive the maximum penalty of 1 percent.⁸ According to the analysis, 12 percent of safety-net hospitals will receive the maximum penalty, compared with only 6 percent of hospitals that serve the fewest number of low-income patients. In addition, the report found safety-net hospitals are generally more likely than other hospitals to receive a penalty of any size.

This issue brief investigates the issue further by examining the publicly reported 30-day hospital readmission rate data on which the readmission adjustment factor is based. Our findings show that safety-net hospitals are more likely to have 30-day readmission rates that are worse than the national average for the three health conditions, compared with other hospitals. These findings confirm that the reduced payments under the HRRP will disproportionately affect the already financially precarious safety-net hospitals that provide care to large numbers of low-income and otherwise vulnerable patients.

Policy solutions to help safety-net hospitals reduce their readmission rates include: targeting quality improvement initiatives toward safety-net hospitals, ensuring that broader delivery system improvements include safety-net hospitals and care delivery systems, and enhancing bundled payment rates to account for socioeconomic risk factors.

BACKGROUND

National 30-day hospital readmission rates have improved very little over the past several years.⁹ For a hospital, lowering readmission rates is complex because readmissions result from numerous hospital factors, such as inadequate inpatient care and discharge planning, as well as various patient and communityrelated factors that go beyond the walls of the hospital. Evidence suggests that 30-day readmission rates are correlated with the composition of a hospital's patient population,¹⁰ such as socioeconomic status and race; social factors,¹¹ such as housing stability and social supports; and community resources,¹² such as access to timely primary care resources and other supports and services.

It may be especially difficult for safety-net hospitals to reduce readmission rates. Safety-net hospitals care for a disproportionate share of vulnerable populations who are low-income, uninsured, underinsured, or on Medicaid. They have substantially higher rates of chronic health problems, disability, mental illness, and substance abuse, compared with the general population. Safety-net hospital patients also have disproportionate personal and social needs that adversely affect their health and act as barriers to accessing and fully benefiting from care. These include homelessness, unsafe housing, and unstable employment. In particular, vulnerable populations are more likely to lack social support systems (e.g., family members at home) and housing stability, which contribute to a disproportionate risk of readmission after hospital discharge.^{13,14} More intensive follow-up strategies will likely be necessary for patients with social risks to reduce their chance of readmission.

In addition to serving a complex patient population, safety-net hospitals have historically operated under slim financial margins, compared with other hospitals.¹⁵ Safety-net providers rely disproportionately

To calculate the penalties, CMS uses an adjustment factor, or multiplier applied to all base operating DRG reimbursements. For fiscal year 2013, the lowest adjustment factor of .9900 is the maximum penalty under which a hospital would be reimbursed 99 percent of its total Medicare payment whereas the highest adjustment factor is 1.0000 under which a hospital would receive 100 percent of its total Medicare reimbursement.

on Medicaid, disproportionate share hospital (DSH) payments, and other public funds to maintain financial viability and sustain their operations.¹⁶ In the current economic downturn, safety-net hospitals have become severely strained as a result of providing substantially more uncompensated care to patients who are strug-gling with rising unemployment, uninsurance, and underinsurance.^{17,18} Even safety-net hospitals that have better financial margins rely on institutional subsidies, such as property tax transfers or supplemental Medicaid payments, which are highly vulnerable to economic downturns.¹⁹ Consequently, many safety-net hospitals likely do not have sufficient financial and human resources to invest in quality improvement strategies that can help to reduce readmission rates.

Along with these challenges, safety-net hospitals are struggling with the uncertain fiscal environment created by the Affordable Care Act. Assuming that states move forward to expand Medicaid eligibility and create health insurance exchanges, low-income and otherwise vulnerable patients will have new and affordable sources of health coverage. As a result, safety-net hospitals will see more insured patients and likely receive additional revenues. However, the facilities are also anticipating a significant reduction of DSH payments, as mandated under the law, a major source of revenue for safety-net hospitals.²⁰ Also, there will still be substantial numbers of uninsured patients who will continue to seek care from safety-net systems. After Massachusetts implemented health reform and coverage expansions in 2006, the number of people with health insurance increased and the number of patients receiving care from safety-net facilities also increased.²¹ In addition, the Affordable Care Act has created new quality improvement programs, like the HRRP, which will use financial incentives to stimulate performance. In this new fiscal landscape in which payments are tied to performance, it will be important for safety-net hospitals to demonstrate quality and efficiency—and specifically to reduce readmission rates.²²

METHODS

National 30-day hospital readmission data come from CMS Hospital Compare, which is publicly available online.²³ We use 30-day hospital readmission rates reported after a hospitalization for acute myocardial infarction (AMI), heart failure, and pneumonia during the time period of July 1, 2008, to June 30, 2011. CMS risk-adjusts the 30-day hospital readmission rates for comorbid health conditions, age, and gender, but not for socioeconomic status, race/ethnicity, and community factors.

Our national sample is based on hospitals, excluding children's hospitals, with sufficient data to publicly report 30-day hospital readmission rates. In total, we have 2,200 hospitals for our final sample. Among these hospitals, for each of the three principal discharge diagnoses of AMI, heart failure, and pneumonia, we focus on admissions for Medicare traditional fee-for-service beneficiaries age 65 years or older.

To identify hospitals by safety-net status, we use Medicare disproportionate share hospital (DSH) index data for each hospital. DSH index = (Medicare Supplemental Security Income Days / Total Medicare Days) + (Medicaid, non-Medicare Days / Total Patient Days). DSH index data come from the CMS Impact File and we report the data as a four-year average of time periods FY 2009 to FY 2013. In general, CMS uses the DSH index to determine a hospital's eligibility for DSH payment and the size of the payment. DSH is a source of funding for hospitals that treat a large share of low-income patients.

We categorize hospitals by DSH index quartiles. We consider safety-net hospitals those that are within top quartile hospital DSH index, also called high DSH index hospitals. Alternatively, low DSH index hospitals are those in the lowest quartile hospital DSH index.

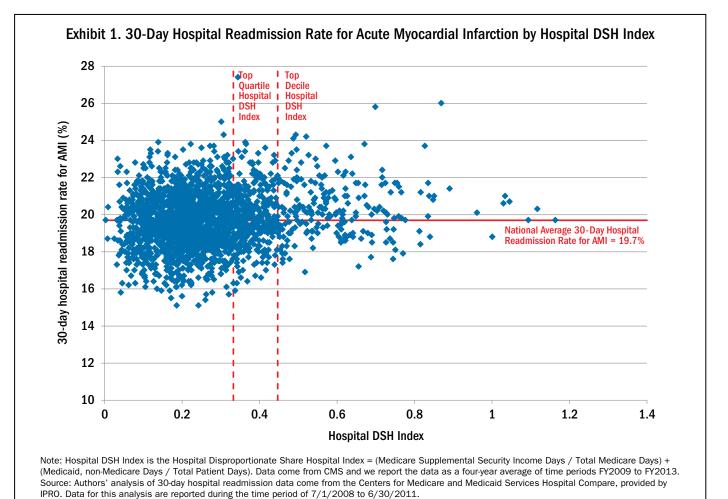
To examine whether safety-net hospitals have disproportionately higher readmission rates compared with other hospitals, within each DSH index quartile we determine the percentage of hospitals that are above the national average 30-day hospital readmission rate and the average 30-day hospital readmission rate for the three clinical conditions.

FINDINGS

For the purposes of this analysis, we use a hospital's Medicare disproportionate share hospital (DSH) index to identify safety-net hospitals (see Methods). While there is no single approach to defining a safety-net hospital, a hospital's DSH index has been widely used by researchers to define safety-net status, and is a good proxy for whether a hospital serves a disproportionate share of low-income patients. In addition, a hospital's DSH index is a good indication of whether a hospital relies disproportionately on DSH payments to sustain its operations, thus having limited financial resources, low operating margins, and a reliance on public dollars for financing. While other indicators, such as the proportion of Medicaid discharges or Medicaid revenue, can also be used to define safety-net status, these measures are not as widely used.

We define safety-net hospitals as those hospitals in the top quartile DSH index—that is, the 25 percent of U.S. hospitals with the highest DSH index score. This represents 550 hospitals of the 2,200 hospitals included in our analysis.

In comparing the 30-day hospital readmission rates for the three clinical conditions, this analysis finds that safety-net hospitals are more likely to exceed the national average 30-day readmission rates, compared with other hospitals (Exhibit 1). (See also Appendix.) A disproportionate share of safety-net hospitals in the top quartile of the DSH index—and even more so in the top decile—have 30-day hospital readmission rates that are above the national average. This is true for all three conditions studied: AMI, heart failure, and pneumonia. As a hospital's DSH index falls below the top quartile, readmission rates become more evenly distributed.



However, there are also examples of highperforming safety-net hospitals. Nationally, there are 84 safety-net hospitals with 30-day readmission rates below the national average for all three health conditions (Exhibit 1).

Data from this analysis also show that the percentage of safety-net hospitals with above-average 30-day hospital readmission rates for AMI, heart failure, and pneumonia is disproportionately greater compared with hospitals with a DSH index in the lowest quartile (Exhibit 2). For AMI, 56.36 percent of hospitals with a top-quartile DSH index have 30-day hospital readmission rates above the national average, compared with only 42.18 percent of hospitals with the lowest-quartile DSH index. Accordingly, safetynet hospitals are 1.34 times as likely to be above the national average for 30-day hospital readmissions for AMI, compared with hospitals with the lowest-quartile DSH index. Similarly, for heart failure, 58.73 percent of safety-net hospitals have 30-day hospital readmission rates above the national average, as opposed to only 45.64 percent of hospitals with the lowest-quartile DSH index. Safety-net hospitals are 1.29 times as likely to be above the national average for 30-day hospital readmission rate for heart failure, compared with hospitals with the lowest-quartile DSH index. Lastly, for pneumonia, 57.09 percent of safety-net hospitals have 30-day hospital readmission rates above the national average, compared with only 45.27 percent of hospitals with the lowest-quartile DSH index. Therefore, safety-net hospitals are 1.26 times as likely to be above the national average for 30-day hospital readmission rate for pneumonia, compared with hospitals with the lowest-quartile DSH index.

When looking at the hospital readmission rates of safety-net hospitals with the top-quartile DSH index,

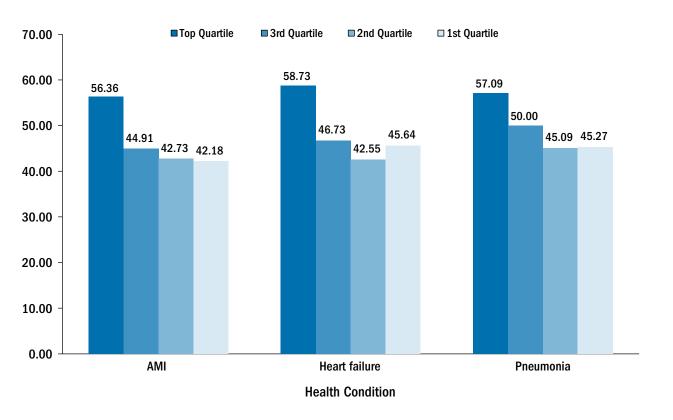


Exhibit 2. Percent of Hospitals by DSH Index Quartile That Are Above the National Average 30-Day Hospital Readmission Rate for Acute Myocardial Infarction, Heart Failure, and Pneumonia

Note: Hospital DSH Index is the Hospital Disproportionate Share Hospital Index = (Medicare Supplemental Security Income Days / Total Medicare Days) + (Medicaid, non-Medicare Days / Total Patient Days). Data come from CMS and we report the data as a four-year average of time periods FY2009 to FY2013. Source: Author analysis of 30-day hospital readmission data come from the Centers for Medicare and Medicaid Services Hospital Compare, provided by IPRO. Data for this analysis are reported during the time period of 7/1/2008 to 6/30/2011.

we find higher rates compared with the national average for all three clinical conditions (Exhibit 3). For AMI, among hospitals with the highest-quartile DSH index, the average 30-day hospital readmission rate is 20.08 percent, compared with the national average of 19.70. For heart failure, among safety-net hospitals, the average 30-day hospital readmission rate is 25.41 percent, compared with the national average of 24.70 percent. For pneumonia, among hospitals within the top-quartile DSH index, the average 30-day hospital readmission rate is 19 percent, compared with the national average of 18.50 percent.

DISCUSSION AND POLICY RECOMMENDATIONS

These results demonstrate that safety-net hospitals are approximately 30 percent more likely to have 30-day hospital readmission rates that are above the national average for each of the three clinical conditions, compared with non–safety-net hospitals, and will therefore be disproportionately affected by the Hospital Readmissions Reduction Program (HRRP). The poor performance of safety-net hospitals on readmission measures has important implications for the financial sustainability of such hospitals going forward in a new fiscal environment in which payments will be tied to performance. Under the HRRP, federal policymakers seek to reduce readmission rates by penalizing hospitals with frequent potentially avoidable hospital readmissions. If a hospital's risk-adjusted 30-day readmission rate exceeds the national average, CMS will financially penalize the hospital the following year by reducing Medicare payments relative to the cost of readmissions above the average. Although the penalties are capped, with a maximum penalty of 1 percent for 2013, they will eventually reach 3 percent of a hospital's Medicare payments in 2015. In addition, CMS plans to expand this program to include other common diagnoses, making the financial penalties even more far-reaching.

There are also other payment reform programs of the Affordable Care Act, like the Value-Based Purchasing Program (VBPP),²⁴ under which part of a hospital's payment will be contingent on its performance on a set of quality measures. Since many safetynet hospitals are financially constrained and anticipating significant reductions in federal funding in the form of DSH payments, these financial penalties will likely have a significant impact. However, safety-net hospitals may have difficulty responding effectively to the financial incentives under the payment reform programs.²⁵ First, quality improvement strategies to reduce readmission rates or improve performance on quality measures may require investing human and

Percent of Percent of Percent of hospitals above the hospitals above the hospitals above the Hospital national average national average national average Average Average Average DSH index 30-day hospital 30-day hospital 30-day hospital 30-day hospital 30-day hospital 30-day hospital Total N readmission rate readmission rate readmission rate readmission rate readmission rate readmission rate for AMI for AMI values for heart failure for pneumonia for heart failure for pneumonia Top decile 220 62.27% 68.64% 58.64% 20.34 25.97 19.14 Top quartile 550 56.36 58.73 57.09 20.08 25.41 19.00 3rd quartile 550 44.91 46.73 50.00 19.64 24.62 18.67 2nd quartile 550 42.73 42.55 45.09 19.55 24.52 18.52 1st quartile 550 42.18 45.64 45.27 19.48 24.49 18.48 National 19.70 24.70 18.50 average

Exhibit 3. Average 30-Day Hospital Readmission Rate and the Percent of Hospitals Above the National Average 30-Day Hospital Readmission Rate for Acute Myocardial Infarction, Heart Failure, and Pneumonia by Hospital DSH Index Quartile

Note: Hospital DSH Index is the Hospital Disproportionate Share Hospital Index = (Medicare Supplemental Security Income Days / Total Medicare Days) + (Medicaid, non-Medicare Days / Total Patient Days). Data come from the Centers for Medicare and Medicaid Services and we report the data as a four-year average of time periods FY2009 to FY2013.

Source: Authors' analysis of 30-day hospital readmission data come from the Centers for Medicare and Medicaid Services Hospital Compare, provided by IPRO. Data for this analysis are reported during the time period of 7/1/2008 to 6/30/2011.

financial resources, which many safety-net hospitals lack.²⁶ In addition, safety-net hospitals serve a disproportionate share of vulnerable populations who often have complex health conditions-substantially higher rates of chronic health problems, disability, mental illness, and substance abuse. This population also tends to have disproportionate personal and social needs, like homelessness, unsafe housing, and unstable employment, which require enabling and support services and transition care after being discharged from the hospital. Because of these complicating characteristics and subsequent lower baseline performance, it may be especially difficult for safety-net hospitals to reduce their readmission rates.²⁷ Recent research has found that safety-net hospitals have lower performance than nonsafety-net hospitals on nearly all measures of patient experience and are thus likely to fare poorly under the VBPP.²⁸ Although quality improvement programs like the HRRP and VBPP aim to stimulate high performance, they may have the unintended consequence of widening the divide between safety-net and other hospitals.²⁹ It will therefore be important to consider strategies that could address the disproportionately poor performance of readmission rates among safetynet hospitals serving large numbers of low-income patients.

Reducing readmissions is a complex issue and includes multiple factors that must be considered when developing strategies. Research has found that readmission rates are associated with hospital-level factors, including quality of care and infrastructure, human and financial resources, and other organizational characteristics.³⁰ In addition, the composition of a hospital's patient population or patient-level factors, such as socioeconomic status and race and ethnicity, are highly correlated with readmissions.³¹ A broad range of social risks and factors, including housing stability, social support, behavioral issues, and neighborhood factors (e.g., urban vs. rural settings, distance from home to hospital, etc.), also contribute.³² There is also evidence that readmission rates are significantly associated with community-level factors, such as the strength and number of primary care providers and other health

care resources, community hospitalization rates, other services and supports beyond health care, and poverty within the community.^{33,34,35}All these factors must be considered in informing the policy response.

Policymakers should consider a multidisciplinary strategy to help safety-net hospitals achieve high performance and reduce readmission rates. Currently, many of the policy debates focus on whether to risk-adjust hospital readmission rates to account for patients' socioeconomic risk factors. CMS 30-day hospital readmission rates are risk-adjusted for comorbid conditions, age, and gender, but not for socioeconomic status, race and ethnicity, or community factors.³⁶ Adjusting risk to account for patients' socioeconomic factors in pay-for-performance programs is controversial, as it may suggest that hospitals that serve a high proportion of vulnerable patients are held to a lower standard of quality. However, there are policy alternatives that should be considered, including targeting quality improvement initiatives for safety-net hospitals; ensuring that broader delivery system improvements include safety-net hospitals and care delivery systems; and enhancing bundled payment rates to account for socioeconomic risk factors.

Targeting Quality Improvement Initiatives for Safety-Net Hospitals

To reduce the gap in performance between safety-net and non–safety-net providers, it will be important to develop and implement programs that focus on improving quality of care, targeting settings that care for large proportions of disadvantaged populations. With support and help from quality improvement initiatives, it is likely that safety-net hospitals can improve their performance and achieve better outcomes. Indeed, data from this analysis reveal several examples of safety-net hospitals with 30-day readmission rates that are below the national average rates, demonstrating that safetynet hospitals can achieve high performance. Finding ways to help low-performing safety-net hospitals engage in quality improvement activities could lead to improved 30-day readmission rates. Evaluations have identified quality improvement strategies and interventions that can reduce the rates of readmission, including discharge planning, the care transitions model, education and support, and home follow-up care.^{37,38,39,40,41} It will be important to include safety-net providers in learning collaboratives, which convene teams of providers to identify and disseminate best practices in quality improvement. For example, the National Association of Public Hospitals and Health Systems works with various quality improvement expert organizations, such as the Institute for Healthcare Improvement, to provide its safety-net member hospitals with access to a collaborative network of professionals and learning activities, such as fellowships, webinars, and conferences.⁴²

There are examples of safety-net hospitals that have implemented quality improvement strategies and interventions and reduced the rates of readmission. For example, Memorial Hermann Memorial City Medical Center, a safety-net hospital in Houston, Texas, has achieved low readmission rates for all three health conditions. A Commonwealth Fund case study of Memorial City found the hospital has implemented patient-focused interventions to educate, support, and link patients-even uninsured patients-to needed care after hospital discharge.⁴³ In addition, the hospital uses risk-assessment software to assess patients' readiness for discharge and embeds pharmacists in highrisk units to educate patients about their medications. Denver Health Medical Center-Colorado's largest safety-net provider-has also achieved readmission rates below the national average. A Commonwealth Fund case study of Denver Health found the health system has succeeded at providing coordinated and integrated care to the community and promoting a culture of continuous quality improvement and innovation.44 For example, Denver Health has implemented strategies to help patients get follow-up care after discharge through its own network of family health centers and clinics in economically disadvantaged neighborhoods. Using a computerized record system, Denver Health can link patient data at all of these locations.

To help low-performing hospitals engage in quality improvement activities, the Affordable Care Act established the Quality Improvement Program for Hospitals with a High Severity Adjusted Readmission Rate in conjunction with the HRRP. This program will use patient safety organizations to help hospitals that have high 30-day readmission rates to reduce their readmissions.⁴⁵ CMS should consider prioritizing safety-net hospitals when developing and implementing the Quality Improvement Program for Hospitals with a High Severity Adjusted Readmission Rate.

In addition, the health reform law created the Center for Medicare and Medicaid Innovation, which is testing innovative models to improve quality of care.⁴⁶ In April 2011, the Innovation Center launched the Partnership for Patients Initiative, a nationwide public–private collaboration to improve quality, safety, and affordability. As part of this initiative, \$218 million was awarded to 26 Hospital Engagement Networks state, regional, and national hospital organizations that will develop learning collaboratives to help identify and spread solutions to improve patient safety within hospitals.⁴⁷ Hospital Engagement Networks should consider prioritizing work with safety-net hospitals.

Ensuring Delivery System Improvements Include Safety-Net Hospitals and Care Delivery Systems

Most often, a combination of factors at the hospital and the community level lead to hospital readmissions. Therefore, providers will need to change how they deliver care to focus on facilitating and ensuring integration and care coordination among hospitals, community-based providers, and other social services and resources. Hospitals can achieve this kind of coordination by adopting and implementing delivery system innovations.

The Affordable Care Act has established many initiatives and demonstrations to test and spread delivery system improvements, including patient-centered medical homes, health homes for Medicaid enrollees with chronic conditions, the Community-Based Care Transitions program, and the Medicare Shared Savings Program for accountable care organizations (ACOs).⁴⁸ Adopting such delivery system improvements will be critical to reducing 30-day readmission rates because these models help to ensure accountability for patients' safety and health among numerous providers and across various care settings, even after discharge. Policymakers should ensure that safety-net hospitals are included in these delivery system innovations and improvements.

The Medicare Shared Savings Program provides incentives to ACOs-a group of providers collectively held accountable for the cost and quality of care of a defined patient population.⁴⁹ Such integrated health systems offer potential benefits to safety-net hospitals serving vulnerable populations that require an array of health and social services.⁵⁰ However, safety-net providers treating vulnerable populations face unique challenges in this regard.⁵¹ In particular, safety-net providers lack the capital, capacity, and payer support necessary to transform to ACOs and thus require new financing strategies, performance measurement techniques, and technical assistance programs.⁵² Recently, some safety-net providers have developed integrated delivery models for vulnerable populations, such as at the Cambridge Health Alliance in Massachusetts and the Camden Coalition of Health Care Providers in New Jersey. Such initiatives offer lessons in designing integrated delivery systems that include safety-net providers.53

The Affordable Care Act also established many demonstrations to test the medical home model, which partners with patients in managing care, provides patients with timely and enhanced access to care, manages existing health conditions, coordinates care across providers, and engages in continuous quality improvement. Health reform offers states the option to receive an enhanced federal match for expanding or implementing "health homes"—which are similar in concept to the medical home—for Medicaid patients with chronic conditions.⁵⁴ In addition, the Innovation Center has launched three medical home initiatives, which target or include safety-net primary care sites that serve low-income, vulnerable patient populations.⁵⁵

Recognizing the potential of the medical home, five leading safety-net hospitals across the country are expanding the medical home model as a strategy to prepare for health reform.⁵⁶ Safety-net hospitals can adopt the medical home model for their primary care outpatient clinics, and can also use a "neighborhood approach" to create better integrated partnerships with primary care providers in the community that are considered medical homes.

The Community-Based Care Transitions program is awarding community-based organizations grants to test models for improving care transitions from the hospital to other settings and reducing readmissions for high-risk Medicare beneficiaries.⁵⁷ Thus far, 47 organizations from across the country have won competitive contracts from CMS to provide care transition services to an estimated 185,000 Medicare beneficiaries across 21 states.⁵⁸ It will be important to target program funding toward safety-net hospitals, as they face disproportionate and unique challenges in reducing readmissions. For example, CMS has awarded a contract to the North Philadelphia Safety Net Partnership, which includes two safety-net hospitals and will provide transition services to Medicare beneficiaries in northern Philadelphia, a medically underserved area with a disproportionate share of vulnerable populations.59

Enhancing Bundled Payment Rates to Account for Socioeconomic Risk Factors

Adopting bundled payment models can help create incentives for care coordination and quality improvement. Under a bundled payment approach, a single payment is made for an episode of care—a defined set of services delivered by designated providers in specified health care settings, usually within a certain period of time, that are related to treating a patient's medical condition or performing a major surgical procedure. Recent evaluations find that bundled payment models align the incentives of multiple providers across care settings and can achieve savings and improve quality.⁶⁰ In particular, bundled payment models that cover 30-day hospital readmissions can help to align incentives with hospitals, physicians, and postacute care providers and give them with new opportunities to develop systematic processes to avoid and reduce readmissions.

Through the Innovation Center, the Affordable Care Act is testing new payment models, including bundled payments.⁶¹ In particular, the Innovation Center has launched the Bundled Payments for Care Improvement Initiative through which CMS is working with providers to develop models of bundling Medicare payments.⁶² With regard to the care systems that serve vulnerable populations, health reform established the Medicaid Global Payment System Demonstration Project,⁶³ which will test global capitated payments to large safety-net hospitals in up to five states. It also created the Medicaid Bundled Payments Demonstration,⁶⁴ which will evaluate the use of bundled payments for hospital and physician services provided during an acute care episode.

While bundled payments can help create incentives for safety-net providers to improve quality, providers will likely also require additional financial investments to meet the unique and complex needs of their patient population. Policymakers should consider enhancing bundled payments for socioeconomic factors. This would acknowledge that safety-net hospitals require more resources to reduce readmission rates because they serve a disproportionate share of vulnerable patients.

Notes

- Medicare Payment Advisory Commission, Report to Congress: Promoting Greater Efficiency in Medicare (Washington, D.C.: MedPAC, June 2007). These data refer to 2005.
- ² S. Jencks, M. Williams, and E. Coleman, "Rehospitalizations Among Patients in the Medicare Fee-for-Service Program," *New England Journal of Medicine*, April 2009 360(14):1418–28.
- ³ Medicare Payment Advisory Commission, *Report to Congress* (Washington, D.C.: MedPAC, 2007).
- ⁴ Jencks, Williams, and Coleman, "Rehospitalizations Among Patients," 2009.
- ⁵ D. Berwick, T. Nolan, and J. Whittington, "The Triple Aim: Care, Health, and Cost," *Health Affairs*, May 2008 27(3):759–69.
- ⁶ Patient Protection and Affordable Care Act (PPACA, P.L. 111–148), as amended by the Affordable Care and Education Reconciliation Act (ACERA, P.L. 111–152). See: K. Davis, *A New Era in American Health Care: Realizing the Potential of Reform* (New York: The Commonwealth Fund, June 2010). For details on provisions, see: Commonwealth Fund Health Reform Resource Center: What's in the Affordable Care Act? (PL 111–148 and 111–152).
- ⁷ PPACA §3025.
- ⁸ J. Rau, "Hospital Treating the Poor Hardest Hit by Readmissions Penalties," *Kaiser Health News*, Aug. 13, 2012.
- ⁹ D. Glass, C. Lisk, and J. Stensland, "Refining the Hospital Readmissions Reduction Program," Presentation by MedPAC, Sept. 7, 2012.
- ¹⁰ K. Joynt, E. J. Orav, and A. Jha, "Thirty-Day Readmission Rates for Medicare Beneficiaries by Race and Site of Care," *Journal of the American Medical Association*, Feb. 16, 2011 305(7):675–81.
- ¹¹ L. Calvillo-King, D. Arnold, K. J. Eubank et al., "Impact of Social Factors on Risk of Readmission or Mortality in Pneumonia and Heart Failure: Systematic Review," *Journal of General Internal Medicine*, published online Oct. 6, 2012.

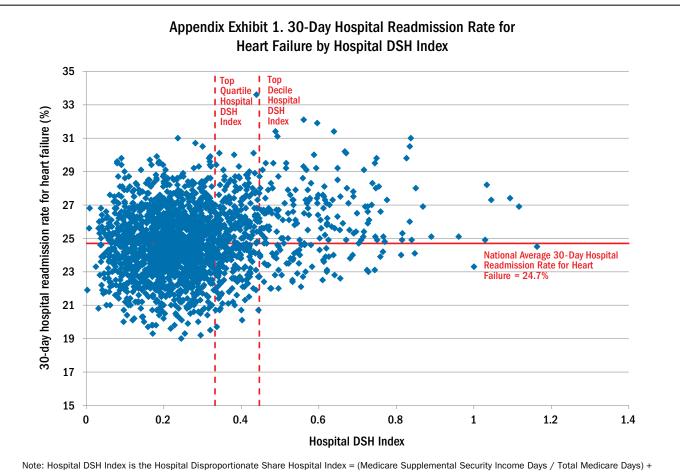
- ¹² G. Misky, H. Wald, and E. Coleman, "Post-Hospitalization Transitions: Examining the Effects of Timing of Primary Care Provider Follow-Up," *Journal of Hospital Medicine*, Sept. 2010 5(7):392–97.
- ¹³ K. A. Schwarz and C. S. Elman, "Identification of Factors Predictive of Hospital Readmissions for Patients with Heart Failure," *Heart & Lung: The Journal of Critical Care,* March/April 2003 32(2):88–99.
- ¹⁴ R. Amarasingham, B. J. Moore, Y. P. Tabak et al., "An Automated Model to Identify Heart Failure Patients at Risk for 30-Day Readmission or Death Using Electronic Medical Record Data," *Medical Care*, Nov. 2010 48(11):981–88.
- ¹⁵ National Association of Public Hospitals and Health Systems, *America's Safety Net Hospitals and Health Systems, 2010: Results of the 2010 NAPH Hospital Characteristics Survey* (Washington, D.C.: NAPH, May 2012).
- ¹⁶ Ibid.
- ¹⁷ National Association of Public Hospitals and Health Systems, *Safety Net Health Systems: An Essential Resource during the Economic Recession* (Washington, D.C.: NAPH, Aug. 2010).
- ¹⁸ National Association of Public Hospitals and Health Systems, *America's Safety Net Hospitals and Health Systems, 2009: Results of the Annual NAPH Hospital Characteristics Survey* (Washington, D.C.: NAPH, Dec. 2010).
- ¹⁹ N. Kane, S. Singer, J. R. Clark et al., "Strained Local and State Government Finances Among Current Realities that Threaten Public Hospitals' Profitability," *Health Affairs*, Aug. 2012 31(8):1680–89.
- ²⁰ PPACA §2551 §3133.
- ²¹ L. Ku, E. Jones, P. Shin et al., "Safety-Net Providers After Health Care Reform: Lessons from Massachusetts," *Archives of Internal Medicine*, Aug. 2011 171(15):1379–84.
- ²² D. Bachrach, L. Braslow, and A. Karl, *Toward a High Performance Health Care System for Vulnerable Populations: Funding for Safety-Net Hospitals* (New York: The Commonwealth Fund, March 2012).

- ²³ U.S. Department of Health & Human Services, Centers for Medicare and Medicaid (CMS), Hospital Compare, available at: http://www.hospitalcompare.hhs.gov/?AspxAutoDetectCookieSuppor t=1.
- ²⁴ PPACA §3001(a)(1).
- ²⁵ R. M. Werner, L. E. Goldman, and R. A. Dudley, "Comparison of Change in Quality of Care Between Safety-Net and Non–Safety-Net Hospitals," *Journal of the American Medical Association*, May 14, 2008 299(18):2180–87.
- ²⁶ S. Silow-Carroll, T. Alteras, and J. Meyer, *Hospital Quality Improvement: Strategies and Lessons from U.S. Hospitals* (New York: The Commonwealth Fund, April 2007).
- ²⁷ Joynt, Orav, and Jha, "Thirty-Day Readmission Rates for Medicare Beneficiaries," 2011.
- ²⁸ P. Chatterjee, K. Joynt, J. Orav et al., "Patient Experience in Safety Net Hospitals: Implications for Improving Care and Value-Based Purchasing," *Archives of Internal Medicine*, published online July 16, 2012.
- ²⁹ L. Casalino, A. Elster, A. Eisenberg et al., "Will Pay-for-Performance and Quality Reporting Affect Health Care Disparities?" *Health Affairs*, April 2007 26(3):w405–w414.
- ³⁰ C. M. Ashton, D. J. Del Junco, J. Souchek et al., "The Association Between Quality of Inpatient Care and Early Readmission: A Meta-Analysis of the Evidence," *Medical Care*, Oct.1997 35(10)1044–59.
- ³¹ Joynt, Orav, and Jha, "Thirty-Day Readmission Rates for Medicare Beneficiaries," 2011.
- ³² Calvillo-King, Arnold, Eubank et al., "Impact of Social Factors," 2012.
- ³³ E. S. Fisher, J. E. Wennberg, T. A. Stukel et al., "Associations Among Hospital Capacity, Utilization, and Mortality of U.S. Medicare Beneficiaries, Controlling for Sociodemographic Factors," *Health Services Research*, Feb. 2000 34(6):1351–62.
- ³⁴ E. S. Fisher, J. E. Wennberg, T. A. Stukel et al., "Hospital Readmission Rates for Cohorts of Medicare Beneficiaries in Boston and New Haven," *New England Journal of Medicine*, Oct. 13, 1994 331(15):989–95.

- ³⁵ Joynt, Orav, and Jha, "Thirty-Day Readmission Rates for Medicare Beneficiaries," 2011.
- ³⁶ D. Kansagara, H. Englander, A. Salanitro et al., "Risk Prediction Models for Hospital Readmission: A Systematic Review," *Journal of the American Medical Association*, Oct. 19, 2011 306(15):1688–98.
- ³⁷ B. Jack, V. Chetty, D. Anthony et al., "A Reengineered Hospital Discharge Program to Decrease Rehospitalization: A Randomized Trial," *Annals of Internal Medicine*, Feb. 2009 150(3):178–87.
- ³⁸ E. Coleman, C. Parry, S. Chalmers et al., "The Care Transitions Intervention: Results of a Randomized Controlled Trial," *Archives of Internal Medicine*, Sept. 2006 166(17):1822–28.
- ³⁹ H. Krumholz, J. Amatruda, G. Smith et al., "Randomized Trial of an Education and Support Intervention to Prevent Readmission of Patients with Heart Failure," *Journal of the American College of Cardiology*, Jan. 2002 39(1):83–89.
- ⁴⁰ M. D. Naylor, D. Brooten, R. Campbell, et al., "Comprehensive Discharge Planning and Home Follow-up of Hospitalized Elders: a Randomized Clinical Trial," *Journal of the American Medical Association*, Feb. 17, 1999 281(7):613–20.
- ⁴¹ M. W. Rich, V. Beckham, C. Wittenberg et al., "A Multidisciplinary Intervention to Prevent the Readmission of Elderly Patients with Congestive Heart Failure," *New England Journal of Medicine*, Nov. 2, 1995 333(18):1190–95.
- ⁴² National Association of Public Hospitals and Health Systems, Quality Improvement Partnership Programs, available at: http://www.naph.org/ Homepage-Sections/Collaborate/Quality-Improvement-Partnership-Programs.aspx.
- ⁴³ A. Lashbrook and J. N. Edwards, *Memorial Hermann Memorial City Medical Center: Excellence in Heart Attack Care Reduces Readmissions* (New York: The Commonwealth Fund, Feb. 2011).
- ⁴⁴ R. Nuzum, D. McCarthy, A. Gauthier et al., *Denver Health: A High-Performance Public Health Care System* (New York: The Commonwealth Fund, July 2007).

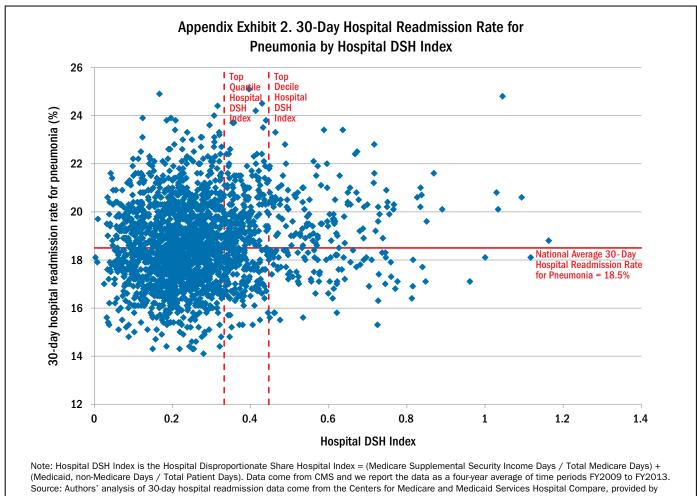
- ⁴⁵ PPACA §3025.
- ⁴⁶ §3021. For an in-depth discussion of the CMMI, see S. Guterman, K. Davis, K. Stremikis, and H. Drake, "Innovation in Medicare and Medicaid Will Be Central to Health Reform's Success," *Health Affairs*, June 2010 29(6):1188–93.
- ⁴⁷ Centers for Medicare and Medicaid Services, "Fact Sheet: Hospital Engagement Networks: Connecting Hospitals to Improve Care," available at http:// www.cms.gov/apps/media/press/factsheet.asp?Coun ter=4219&intNumPerPage=10&checkDate=&check Key=&srchType=1&numDays=3500&srchOpt=0&s rchData=&keywordType=All&chkNewsType=6&in tPage=&showAll=&pYear=&year=&desc=&cboOr der=date.
- ⁴⁸ For details on provisions, see: Commonwealth Fund Health Reform Resource Center: What's in the Affordable Care Act? (PL 111–148 and 111–152).
- ⁴⁹ S. Guterman, S. C. Schoenbaum, K. Davis, C. Schoen, A.-M. J. Audet, K. Stremikis, and M. A. Zezza, *High Performance Accountable Care: Building on Success and Learning from Experience* (New York: The Commonwealth Fund, April 2011).
- ⁵⁰ A. Shih, K. Davis, S. C. Schoenbaum, A. Gauthier, R. Nuzum, and D. McCarthy, *Organizing the U.S. Health Care Delivery System for High Performance* (New York: The Commonwealth Fund, Aug. 2008).
- ⁵¹ L. Ku, P. Shin, M. Regenstein et al., Promoting the Integration and Coordination of Safety-Net Health Care Providers Under Health Reform: Key Issues (New York: The Commonwealth Fund, Oct. 2011).
- ⁵² V. A. Lewis, B. K. Larson, A. B. McClurg et al., "The Promise and Peril of Accountable Care for Vulnerable Populations: A Framework for Overcoming Obstacles," *Health Affairs*, Aug. 2012 31(8): 1777–85.
- ⁵³ K. Witgert and C. Hess, *Including Safety-Net Providers in Integrated Delivery Systems: Issues and Options for Policymakers* (New York and Portland, Maine: The Commonwealth Fund and the National Academy for State Health Policy, Aug. 2012).
- ⁵⁴ PPACA §2703.

- ⁵⁵ Center for Medicare and Medicaid Innovation, *One Year of Innovation: Taking Action to Improve Care and Reduce Costs* (Washington, D.C.: CMS, Feb. 2012).
- ⁵⁶ T. Coughlin, S. Long, E. Sheen et al., "How Five Leading Safety-Net Hospitals Are Preparing for the Challenges and Opportunities of Health Care Reform," *Health Affairs*, Aug. 2012 31(8):1690–97.
- ⁵⁷ PPACA §3026.
- ⁵⁸ Centers for Medicare and Medicaid Services and Center for Medicare and Medicaid Innovation, "The Community-Based Care Transitions Program," available at http://www.innovations.cms.gov/ initiatives/Partnership-for-Patients/CCTP/index. html?itemID=CMS1239313.
- ⁵⁹ Centers for Medicare and Medicaid Services and Center for Medicare and Medicaid Innovation, "Philadelphia Bridge Care Transition Program North Philadelphia Safety Net Partnership," available at http://www.innovations.cms.gov/Files/x/ CCTP-NorthernPA.pdf
- ⁶⁰ Z. Song, D. Safran, B. Landon et al., "The 'Alternative Quality Contract' Based on a Global Budget, Lowered Medical Spending and Improved Quality," *Health Affairs*, July 2012 31(8):1885–94.
- ⁶¹ PPACA §3021. For an in-depth discussion of the CMMI, see Guterman, Davis, Stremikis et al., "Innovation in Medicare and Medicaid," 2010.
- ⁶² Centers for Medicare and Medicaid Services and Center for Medicare and Medicaid Innovation, "Bundled Payments for Care Improvement," available at http://innovations.cms.gov/initiatives/bundled-payments/index.html.
- ⁶³ PPACA §2705.
- 64 PPACA §2704.



Appendix. Additional Scatterplots of 30-Day Hospital Readmission Rates by DSH Index

Note: Hospital DSH Index is the Hospital Disproportionate Share Hospital Index = (Medicare Supplemental Security Income Days / Total Medicare Days) + (Medicaid, non-Medicare Days / Total Patient Days). Data come from CMS and we report the data as a four-year average of time periods FY2009 to FY2013. Source: Authors' analysis of 30-day hospital readmission data come from the Centers for Medicare and Medicaid Services Hospital Compare, provided by IPRO. Data for this analysis are reported during the time period of 7/1/2008 to 6/30/2011.



IPRO. Data for this analysis are reported during the time period of 7/1/2008 to 6/30/2011.

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