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## **Lessons Learned Preparing for Medicare Bundled Payments**

Robert Mechanic, M.B.A., and Christopher Tompkins, Ph.D.

For nearly 50 years, Medicare has operated separate payment systems for hospitals, clinics, physicians, post-acute care facilities, and other categories of health care providers, with few incentives

for coordinating care across the continuum of services. These systems support a fragmented delivery system at substantial cost to taxpayers and Medicare beneficiaries.

Policy analysts have long been interested in encouraging improved efficiency and care coordination by bundling Medicare payments for a range of services delivered during defined episodes of care.<sup>1</sup> For example, an episodebased payment for total joint replacement could include the inpatient admission and professional services, plus skilled nursing, home health care, and other postacute care services for a defined period after discharge.

In August 2011, the Center for Medicare and Medicaid Innovation of the Centers for Medicare and Medicaid Services (CMS) announced a Bundled Payments for Care Improvement Initiative and invited providers to apply for one of four new payment models to begin in 2013. The first model bundles payments for hospital and physician services during a hospitalization. The second model bundles payments for hospitalization and all post-acute care services for up to 180 days after discharge. The third model bundles payments for post-acute care services after hospitalization but doesn't include the hospital stay. The fourth model sets a fixed prospective payment for all services during a hospitalization plus readmissions within 30 days. As we assisted more than 100 hospitals in preparing to participate, we assessed the program's opportunities and challenges through analysis of a large Medicare claims database.

Under the new program, episodes of care are triggered by a hospitalization. CMS did not define specific episode types but invited applicants to propose their own definitions within the four models' parameters. In applications that were submitted in June, organizations proposed episode definitions that included inpatient diagnosis-related groups (DRGs), episode time windows, and lists of services to be excluded from episodes. In October, CMS came back to the applicants with standard definitions for 48 episodes that would be the basis of the program. Hospitals that select multiple episode types containing high-volume DRGs, such as total joint replacement, congestive heart failure, chronic obstructive pulmonary disease, and pneumo-

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Variation in Average 2009 Medicare Spending among Selected Hospitals for a 90-Day Episode of Congestive Heart Failure.

Each bar represents spending at a particular hospital. Data are from the author's analysis of 2009 Medicare claims adjusted for the geographic wage index. Amounts were calculated with the exclusion of readmissions and Part B services that are not related to the diagnosis of congestive heart failure. Post-acute care spending includes costs of inpatient readmissions.

nia, could easily shift 10 to 20% of their Medicare volume into the bundled-payment program. Those that applied for the model covering both acute and post-acute care spending — our focus here — are beginning a shift from primarily providing inpatient care to taking financial responsibility for Medicare beneficiaries across a full continuum of services.

The first three models don't actually pay a fixed price to the organization responsible for an episode of care. Most hospitals cannot divide a prospective payment among individual providers because they don't have contracts with all providers who serve their Medicare beneficiaries. Instead, CMS will set a target price for each episode - based on historical spending on each organization's patients minus a required discount — and continue to pay for care at Medicare's fee-for-service rates. Then periodically, CMS will assess whether actual spending for each organization's episodes is above or below the target budget. Those beating the spending target will receive additional payments, and those exceeding it must return the excess amount to CMS.

As part of the application process, CMS provided detailed Medicare claims data to prospective applicants so that they could build episodes and calculate historical prices. For most organizations, this was the first opportunity to systematically analyze what happens to Medicare patients after they leave the hospital. Our work with these hospitals focused on episodes of inpatient care plus all related services for 90 days after discharge. Several important findings emerged.

First, the data show that Medicare typically spends as much or more in the 90 days after discharge as it spends for the initial hospitalization. For patients who are admitted for chronic illnesses such as congestive heart failure, post-acute care spending can average twice the cost of the initial hospital stay, and 90-day readmission rates can exceed 40% (see graph).<sup>2</sup>

Second, the data show wide variation in average post-acute

care spending. Hospitals with post-acute care spending above the median for any particular episode type spent, on average, about 40% more than hospitals with spending below the median, and variation between the lowest-cost and highest-cost hospitals frequently exceeded 100%. Readmissions are one major source of variation. For episodes of congestive heart failure, high-cost facilities frequently have readmission rates of approximately 40% — 10 percentage points higher than low-cost facilities. Utilization of post-acute care facilities also drives variation. For example, hospitals with high post-acute care spending for total joint replacement tend to use rehabilitation hospitals and skilled nursing facilities much more frequently than do those with lower spending.

This variation highlights opportunities for hospitals and their partners to improve quality and reduce spending by reaching out to patients after discharge and reconciling medications, scheduling timely primary care visits, establishing plans for addressing common problems, and coordinating with post-acute care providers. Although many hospitals lack strong clinical relationships with such providers, the data that applicants receive from CMS can help them identify partners by showing where their patients receive services and at what cost.

A critical finding of our analysis is that the current design of Medicare's bundled-payment program poses financial risks for participating hospitals because the relatively small number of patients within each type of episode can lead to substantial year-to-year variation in the severity of illness in, and costs for, patients who

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require treatment. CMS recognizes the importance of random variation and the need for actuarially stable populations in its Medicare Shared Savings Program, in which organizations cannot participate unless they serve at least 5000 beneficiaries. The bundled-payment initiative sets no such limits, and medium-sized hospitals typically have 100 to 200 cases for their highest-volume types of Medicare episodes. At these lower volumes, hospitals may have large year-to-year shifts in average spending for particular episode types owing to random variation in illness severity.

For example, our simulations showed that 25% of hospitals with 100 to 125 annual admissions for congestive heart failure would incur financial losses of at least 11% simply because their patients in the program's first year differ from those in the period used in setting their target prices.<sup>3</sup> Another 25% of these hospitals would achieve financial gains of 6.1% or more. Such random variation in illness severity could overwhelm the effect of performance improvements in determining a hospital's shortterm financial outcomes making early wins and losses artifacts of variation rather than

marks of true success or failure.

The Bundled Payments for Care Improvement Initiative has great potential to engage hospitals in clinical redesign and care coordination that could improve both care and efficiency. Hospitals already have incentives through Medicare's DRG payment system to make inpatient care more efficient, but few have invested in managing care after discharge. The bundled-payment initiative provides an opportunity for hospitals to gain experience with coordinating care across a continuum of services for discrete clinical conditions. Nonetheless, program managers must be vigilant to ensure that the financial incentives don't cause stinting on care or avoidance of high-risk patients.4

The success of the initiative will depend on whether it protects participating hospitals against losses resulting from both random and systematic variation in illness severity. Certain design features will make it much more attractive to hospitals, including risk adjustment, stop-loss protection for high-cost cases, an ability to exclude cases with highcost primary diagnoses from episode definitions, and so-called risk corridors that allow hospitals to share both gains and losses as they acclimate to the program. CMS has begun to discuss changes to the proposed financial model with applicants. If hospitals are confident that the program will financially reward successful clinical performance, many more will be willing to pursue the opportunities for care improvement that this program seeks to encourage.

Disclosure forms provided by the authors are available with the full text of this article at NEJM.org.

From the Heller School for Social Policy and Management, Brandeis University, Waltham, MA.

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## Reducing Administrative Costs and Improving the Health Care System

David Cutler, Ph.D., Elizabeth Wikler, B.A., and Peter Basch, M.D.

The average U.S. physician spends 43 minutes a day interacting with health plans about payment, dealing with formularies, and obtaining authorizations for procedures.<sup>1</sup> In addition, physicians' offices must hire coders, who spend their days translating clinical records into billing forms and submitting and monitoring reimbursements. The amount of time and money spent on administrative tasks is one of the most frustrating aspects of modern medicine.

Indeed, for the system as a whole, administrative tasks are extremely costly. According to the

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