ONLINE APPENDIXES

2

Care coordination in fee-for-service Medicare

ONLINE APPENDIX 2-A

Medicare demonstrations on value-based payment

TABLE 2A–1

Medicare demonstrations on value-based payment

Demonstration	Date	Description	Results
Acute Care Episode Demonstration	2009–ongoing	Bundled payments that cover all physician and hospital services for selected cardiac and orthopedic procedures.	No published results yet.
Gainsharing and Physician Hospital Collaboration demonstrations	2008–ongoing	Models allowing gainsharing between hospitals and physicians. Incentive payments tie to quality and efficiency improvements.	No published results yet.
Home Health Pay-for-Performance Demonstration	2008–2009	Potential for shared savings for home health agencies that had the highest quality scores or the largest improvement in quality scores.	Preliminary findings from the first year show little or no effect on Medicare spending and on patient outcomes.
Participating Heart Bypass Center Demonstration	1991–1996	Certain facilities were paid a single bundled payment for heart bypass surgery. Centers were chosen based on prior efficiency and high quality.	Savings were about 10 percent of FFS spending. Patient outcomes were similar to comparison group.
Physician Group Practice Demonstration	2005–2010	Physician group practices eligible for bonuses if they lowered spending on their Medicare patients. Bonuses also dependent on quality metrics.	Little or no effect on Medicare spending. Small improvement in process measures.
Premier Hospital Quality Incentive Demonstration	2003–2009	Hospitals eligible for bonuses if their quality scores exceeded a certain threshold.	No effect on Medicare spending. Small improvements in process measures, no effect on mortality.

Note: FFS (fee-for-service).

Source: Nelson 2012 and Cromwell et al. 2011.

ONLINE APPENDIX 2-B

Measuring the effectiveness of care coordination

There are a few quality measures that attempt to synthesize system-wide care coordination as well as specific measures of clinical improvement or functioning that are used in evaluating the care coordination models.

A couple of broad measures attempt to synthesize the overall experience of obtaining care. First, the "hassles" scale developed by Parchman and colleagues used surveys to identify the difficulties people experience as they try to navigate the medical system. They found that the level of hassles was higher for people with multiple chronic conditions (Parchman et al. 2005). Another measure along these lines is the continuity-of-care index, which measures the number of providers a patient sees, along with the share of appointments with each provider and the total number of visits (Bice and Boxerman 1977, Liu et al. 2010). While this index measures the concentration of a beneficiary's medical care among different providers, it may not be helpful in trying to assess the effectiveness of a care coordination intervention that would not reduce the number of providers but would facilitate communication among them.

The National Quality Forum put together a consensus report in 2010 that included quality measures for care coordination. The report includes 10 measures, 1 of which could be evaluated using only claims data (patients with a transient ischemic event emergency room visit who had a follow-up office visit), and 3 more that could be evaluated with a combination of claims data and electronic medical records (cardiac rehabilitation patient referral from an inpatient and an outpatient setting, and melanoma continuity of care). The National Quality Forum includes the Three-Item Care Transitions Measure, a patient survey measure designed to evaluate satisfaction with the discharge process. The measure attempts to evaluate whether patients' preferences were taken into account during the transition out of the hospital and whether they understood their care plan and how to safely take their medications.

Measures used in evaluation of the effectiveness of the Medicare demonstrations include:

- ***Enrollment and retention*—**For example, how effective was the care manager at engaging and enrolling the beneficiary?
- ***Beneficiary and provider experience and beneficiary satisfaction*—**For example, did beneficiaries think their care was coordinated? Did they like dealing with the care manager? Did they think the care manager improved their quality of life or helped them deal with the health system? Questions include beneficiaries' access to care—for example, whether they were able to obtain care during nonworking hours. Do the medical providers appreciate the care manager, and would they recommend it to their patients? These types of measures are generally going to be based on surveys and interviews.
- ***Functioning and health behaviors*—**These measures would assess whether the care coordination intervention improved beneficiaries' ability to manage their medical care, whether their physical and mental function stabilized or improved, and changes in their quality of life. These measures are generally going to be based on surveys, interviews, and assessments.
- ***Process-of-care measures*—**These measures include compliance with recommended guidelines, such as vaccine compliance and tests of hemoglobin A1c, and whether a medication reconciliation occurred. These types of measures may also include some specific to transitional interventions—such as whether a discharged beneficiary had a hospital visit within a certain period of time. Some of these measures can be obtained through claims and clinical records.
- ***Intermediate outcome measures*—**These measures include acute hospitalizations, readmissions, emergency room use (all cause as well as ambulatory-care-sensitive conditions). These measures would be obtained through claims.
- ***Outcomes measures*—**These measures include mortality, complications, adverse events (such as an adverse drug event), and worsening illness status. These measures would be obtained through claims and clinical records.
- ***Cost measures*—**These measures include Medicare expenditures as well as the fees paid to care management organizations and are obtained through claims and financial records. ■

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ONLINE APPENDIX 2-C

Profile of high-cost Medicare beneficiaries

TABLE 2C–1

Demographics of high-cost Medicare beneficiaries, 2008

	All Medicare FFS	Top 10% of Medicare FFS cost
Age		
Under 65	17%	18%
Over 85	27	37
Entitlement		
Age	83	78
Disability	16	13
ESRD	1	8
Race		
White	85	82
African American	9	12
Hispanic or Latino/Latina	2	3
Gender		
Female	56	57

Note: FFS (fee-for-service), ESRD (end-stage renal disease). Only full year Part A and Part B FFS enrollees included. *N* = 29.3 million beneficiaries.

Source: 2008 Medicare Beneficiary Annual Summary File.

TABLE 2C–2

Disposition of high-cost FFS beneficiaries

Number of beneficiaries with the top 10% of spending in 2008	2.9 million
Died in 2009	17%
Percentile of spending in 2009	
Top 10th	33
10th–25th	21
25th–50th	17
Bottom 50th	12

Note: FFS (fee-for-service). Only full year Part A and Part B FFS enrollees included. Less than 1% excluded because they were not full-year FFS enrollees in 2009. In comparison, about 5% of all FFS Medicare beneficiaries died in 2009.

Source: 2008 and 2009 Medicare Beneficiary Annual Summary File.

TABLE 2C–3

Incidence of chronic disease among high-cost Medicare beneficiaries, 2008

	All Medicare FFS	Top 10% of Medicare FFS cost
Chronic kidney disease	11%	11%
COPD	10	10
Congestive heart failure	14	44
Diabetes	24	41
Ischemic heart disease	29	58
At least one of the above conditions	50	83
Alzheimer's disease/dementia	9%	24%
Depression	13	31

Note: FFS (fee-for-service), COPD (chronic obstructive pulmonary disease). Only full year Part A and Part B FFS enrollees included. *N*= 29.3 million beneficiaries. Disease incidence based on Chronic Condition Warehouse definition

Source: 2008 Medicare Beneficiary Annual Summary File.

TABLE 2C–4

Utilization among high-cost Medicare beneficiaries, 2008

	All Medicare FFS	Top 10% of Medicare FFS cost
Mean number of:		
Inpatient stays	0.3	2
Outpatient visits	4.1	10
Physician visits	7.6	13
SNF days	1.8	16

Note: FFS (fee-for-service), SNF (skilled nursing facility). Only full year Part A and Part B FFS enrollees included. *N*=29.3 million beneficiaries. The physician visit total includes any location—hospitals, domiciliaries, rest homes, and offices.

Source: 2008 Medicare Beneficiary Annual Summary File.