



Episode of Care Payments

Funding care across the spectrum

March 2014

Background

Episodes of care are defined as “...a block of one or more medical services received by an individual during a period of relatively continuous contact with one or more providers of service, in relation to a particular medical problem or situation” by Solon et al. (1). A bundle is defined as the set of services or treatments provided to a patient for an episode of care including all aspects of a patient’s care across providers and settings over a fixed period of time (2)(3).

In bundled payments, a single comprehensive amount is used to fund pre-acute, acute and post-acute care related to a condition or medical event for a fixed period of time (4). Hospitals, post-acute providers and physicians are held jointly accountable for the payment amount (5)(6). Providers are responsible for expenditures in excess of the funding amount and they retain any surpluses between the cost of care and the bundled payments (2). This mechanism creates a financial incentive for providers to increase coordination and quality of care (2).

Since the late-1990s, several bundled payment projects have been implemented in the United States (US) (7). In 2011, the Affordable Care Act included a new

program, “Bundled Payments for Care Improvement Initiative” (8). Decrease costs of care, improve quality of care and increase coordination between providers are the goals of this program (8). Examples of bundled payments projects in the US are included in the Appendix. The Netherlands also piloted bundled payments for different health conditions, such as diabetes, chronic obstructive pulmonary disease (COPD) and vascular risk management (9).

Methods

Conditions

Hussey et al. suggested three criteria to consider when defining an episode or care: number of settings to include, number of conditions to focus on, and variations within episodes (10). Bundled payments are easier to implement for conditions with clearly defined clinical pathways and fewer providers (11). Surgical conditions, such as coronary artery bypass graft (CABG), hip fracture repair, back surgery, colectomy and joint replacements are suitable for bundled payments (12)(13); however, mental health conditions might be challenging due to diffuse care trajectories. Chronic medical conditions provide stronger potential for care delivery improvement with bundled payments (14).

Episode Length

Optimal bundle length varies across conditions. For instance, common episode lengths for acute events like joint replacements are 30, 60 or 90 days after index hospitalizations, but episode lengths for chronic conditions might be longer since treatments are required over long periods of time. As defined by Bach et al., the episode length for metastatic lung cancer is one month due to the changing and unpredictable nature of care; and the episode length for early-stage cancers is the full course of chemotherapy treatment (15).

The length of post-acute period should allow patients to fully recover from a condition (4). This is an important consideration for chronic conditions that span a patient's lifetime (4). Even though longer episode lengths increases providers' financial risk, Sood et al. found that more costs and readmissions are captured with longer episode lengths without adding financial risk excessively (13).

Payments

There are a few different methods to determine payment amounts. Payers could negotiate payment amounts when there are a small number of episode types or providers included (4). Payment rates could also be based on historical costs, standard of care guidelines or a competitive bidding process (4). When more data on program outcomes are available, payers have to revisit and update payment rate (4). Severity of illness and social determinants could be factors for risk adjustment (4).

Administrative Entity

For a bundled payment to be effective, someone will have to be in charge of the payment. This administrative entity of bundled payments need to work effectively with all care providers to hold them accountable for effective and efficient delivery of care (4). The entity also need to ensure that all care providers involved in an episode of care have equal bargaining power in the reimbursement process (4).

Under the bundled payments system in the Netherlands, a care group formed by various healthcare providers is responsible for the clinical and financial aspects in the diabetes care program (9). The care groups either delivers diabetes care themselves or subcontracts with other care providers (9).

Payment Implications

Strengths

Bundled payments create financial incentives for providers to coordinate care across setting and provide high quality of care because the providers bear the financial risk of unplanned readmissions and the cost of all post-acute care (13). Studies on bundled payment projects have identified several strengths of bundled payments, including reducing the risk of cost shifting between sectors, providing an approach to develop comprehensive and long-term measures of quality and outcomes, reducing hospital readmission due to fragmented care and holding providers responsible for fragmented care, rather than to the system (12)(16)(17)(18)(19).

The Medicare Participating Heart Bypass Demonstration had a 10% cost reduction on CABG surgery in participating hospitals (20). The reduction in lengths of stay in the participating hospitals ranged from half a day to a day (20). ProvenCare saw a 5% hospital cost reduction with a decrease in average length of stay for CABG by half a day (21).

In the Medicare Participating Heart Bypass Demonstration, the one-year, post-discharge mortality rates declined 8% annually (20). Greater proportion of patients reported that they were very satisfied with the overall care in the hospitals (20). With best practice guidelines implemented in the ProvenCare bundled payments, there were fewer adverse events, a decrease by 21% in patients with any complications and a decrease by 44% in the 30-day readmission rate (21) (22)(23).

Unintended Consequences

Bundled payments provide incentives for providers to reduce unnecessary utilization, but in order to increase profit, necessary care might be reduced or unnecessary episodes of care might be delivered (4) (24). Services that improves patients health but do not affect readmission and other short-term quality might not be offered under bundled payments (13).

Hospitals could also reduce the number of post-acute providers they use or increase the use of in-hospital post-acute units to save on managerial and administrative costs, such as setting up reimbursement contracts with post-acute providers in their referral network (13). Patients' welfare could be adversely effected by the limited number of post-acute care providers in a hospital's referral network (13).

Other Challenges

Getting providers to buy in to bundled payment and then motivating them to change their care delivery methods is a major challenge (11). The PROMETHEUS model followed an evidence-based development process for bundles and payment rate to earn providers' trust (11). ProvenCare also experienced the issue of persuading the doctors to get on board, especially when each cardiac surgeon delivered care differently (25).

Difficulties encountered in billing and collection caused dissatisfaction in the Medicare Participating Heart Bypass Demonstration (20). Hospitals felt that extra payments should be provided to cover the new billing arrangements (20).

Conclusion

Accurate, timely and linkable data needs to be collected across all health care settings, such as hospitals, post-acute care and physicians in order to create effective bundled payments (2). Policymakers need to ensure that all relevant data are measured and reported reliably and consistently (2).

Physicians play critical role in bundled payments since their decisions influence usage of hospitals and post-acute care settings (2). Policymakers need to understand the potential effect of implementing bundled payments on fee-for-service physicians to minimize negative consequences (2).

Appendix

Table 1: Examples of bundled payments projects in the US.

Project name	Payer	Date	Conditions	Bundle description
Medicare Participating Heart Bypass Center Demonstration	Medicare	1991-1996	CABG	Medicare inpatient services, related readmissions, hospital pass throughs
ProvenCare Program	Geisinger Health System	2006-present	CABG, hip replacement, cataract surgery, angioplasty, perinatal care, bariatric, low back pain, erythropoietin management	Preoperative care, inpatient services, postoperative care for 90 days
PROMETHEUS Payment Model	Various	2009, ongoing	21 conditions including chronic medical conditions, acute medical conditions, and surgical procedures	Inpatient and outpatient provider fees and services
Medicare Acute Care Episode (ACE) Demonstration	Medicare	2009-2013	Cardiovascular and/or orthopedic procedures	Medicare services
Medicaid – bundled payment demonstration in up to 8 U.S. states	Medicaid	2012-2016	Conditions with the potential for cost savings and quality improvement	Hospitalizations and physician fees during hospitalizations
Medicare End-Stage Renal Disease Management Demo	Medicare	2006-2010	End stage renal disease	Integrative care that includes comorbidity management, preventative care, etc.

Note: Adapted from Chambers et al (7).

References

- Solon JA, Feeney JJ, Jones SH, Rigg RD, Sheps CG. *Delineating episodes of medical care*. Am J Public Health Nations Health. 1967;57(3):401–8.
- Sutherland JM, Repin N. *Reviewing the Potential Roles of Financial Incentives for Funding Healthcare in Canada*. 2012.
- Sutherland JM, Hellsten E, Yu K. *Bundles: An opportunity to align incentives for continuing care in Canada?* Health Policy. 2012;107(2-3):209–17.
- American Hospital Association. *Bundled Payment-AHA Research Synthesis Report*. 2010.
- Hackbarth G, Reischauer R, Mutti A. *Collective accountability for medical care--toward bundled Medicare payments*. N Engl J Med. 2008;359(1):3–5.
- Medicare Payment Advisory Committee. *Report to the Congress: Improving Incentives in the Medicare Program*. Washington; 2009.
- Chambers JD, Weiner DE, Bliss SK, Neumann PJ. *What can we learn from the U.S. expanded end-stage renal disease bundle?* Health Policy. 2013;110(2-3):164–71.
- U.S. Department of Health & Human Services. *Affordable Care Act initiative to lower costs, help doctors and hospitals coordinate care*. U.S. Department of Health and Human Services; 2011.
- Struijs JN, Baan CA. *Integrating care through bundled payments--lessons from The Netherlands*. N Engl J Med. 2011;364(11):990–1.

10. Hussey PS, Sorbero ME, Mehrotra A, Liu H, Damberg CL. *Episode-based performance measurement and payment: making it a reality*. Health Aff. 2009;28(5):1406–17.
11. Hussey PS, Ridgely MS, Rosenthal MB. *The PRO-METHEUS bundled payment experiment: slow start shows problems in implementing new payment models*. Health Aff. 2011;30(11):2116–24.
12. Birkmeyer JD, Gust C, Baser O, Dimick JB, Sutherland JM, Skinner JS. *Medicare payments for common inpatient procedures: implications for episode-based payment bundling*. Health Serv Res. 2010;45(6 Pt 1):1783–95.
13. Sood N, Huckfeldt PJ, Escarce JJ, Grabowski DC, Newhouse JP. *Medicare’s bundled payment pilot for acute and postacute care: analysis and recommendations on where to begin*. Health Aff. 2011;30(9):1708–17.
14. De Brantes F, Rastogi A, Painter M. *Reducing potentially avoidable complications in patients with chronic diseases: the Prometheus Payment approach*. Health Serv Res. 2010;45(6 Pt 2):1854–71.
15. Bach PB, Mirkin JN, Luke JJ. *Episode-based payment for cancer care: a proposed pilot for Medicare*. Health Aff. 2011;30(3):500–9.
16. Mor V, Intrator O, Feng Z, Grabowski DC. *The revolving door of rehospitalization from skilled nursing facilities*. Health Aff. 2010;29(1):57–64.
17. Thomas F, Caplan C, Levy JM, Cohen M, Leonard J, Caldis T, et al. *Clinician feedback on using episode groups with Medicare claims data*. Health Care Financ Rev. 2010;31(1):51–61.
18. Grabowski DC. *Medicare and Medicaid: conflicting incentives for long-term care*. Milbank Q. 2007;85(4):579–610.
19. Jencks SF, Williams M V, Coleman EA. *Rehospitalizations among patients in the Medicare fee-for-service program*. N Engl J Med. 2009 Apr;360(14):1418–28.
20. Cromwell J, Dayhoff DA, McCall NT, Subramanian S, Freitas RC, Hart RJ, et al. *Medicare participating heart bypass demonstration*, Executive summary. Final Report. Waltham, MA, USA; 1998 p. 1–29.
21. Casale AS, Paulus RA, Selna MJ, Doll MC, Bothe AE, McKinley KE, et al. *“ProvenCareSM”: a provider-driven pay-for-performance program for acute episodic cardiac surgical care*. Ann Surg. 2007;246(4):613–21; discussion 621–3.
22. Geisinger Health System. *ProvenCare by the Numbers*. 2013.
23. Geisinger Health System. *ProvenCare Process*. 2013.
24. Mechanic RE. *Opportunities and challenges for episode-based payment*. N Engl J Med. 2011;365(9):777–9.
25. Abelson R. *In Bid for Better Care, Surgery With a Warranty*. New York Times. 2007.

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