

Successes and Failures With Bundled Payments in the Commercial Market

Richard Freeman, MD; Joseph Coyne, DrPH; and Jon Kingsdale, PhD

Some observers have suggested that widespread adoption of condition-specific bundled payment (CSBP) reimbursement may be less complex than other reimbursement reforms.¹ Evaluations of 10 Medicare payment pilots found that only bundled payments clearly generated significant savings (10%).² CMS initially began experimenting with episode-of-care payment in 1988 when concern arose over the rising costs of coronary artery bypass surgery.³ In 2009, a Medicare Payment Advisory Committee report⁴ suggested expanding CSBPs as an innovation that might be a way to align physicians and hospitals to achieve better quality at lower cost. Subsequently, CMS developed the Bundled Payments for Care Improvement (BPCI)⁵ initiatives. Initial BPCI results convinced CMS to mandate bundled payment reimbursement for all hip and knee replacements, before reversing the mandate in 2017. Results of the BPCI programs suggest that, in addition to cost savings for Medicare, providers benefited because they had added flexibility to provide alternative care to patients,⁶ and more than two-thirds reported gainsharing with physicians and partner facilities.⁴

Surprisingly, few commercial payers have pursued CSBP models. One recent report estimated that only about 2% of all commercial payments flow through CSBPs.⁷ Nonetheless, there are illustrative examples in which commercial payers have worked with provider systems in CSBP models. Notably, however, there are no critical analyses of these efforts to implement this alternative payment model in the commercial market. In this commentary, we highlight some examples of successful commercially funded CSBP programs and contrast these with those that have not succeeded. This comparison, supplemented with interviews with commercial insurance executives, highlights characteristics of successful programs and suggests opportunities to move toward more robust implementation of CSBPs in the commercial insurance market.

We found 12 examples of commercially funded CSBPs for which sufficient information could be gleaned to draw some conclusions. Of these, 6 are ongoing. One pilot that enrolled an unknown number of patients was terminated by the payer because it moved on to a newer CSBP model. Five others were terminated either due to failure

TAKEAWAY POINTS

Medicare has embraced condition-specific bundled payments (CSBPs) in its Bundled Payments for Care Improvement initiatives. However, commercial insurers have been slow to follow Medicare's lead. In our critical appraisal of the few commercial CSBP programs, we highlight these primary takeaway points:

- ▶ Successful plans have closely aligned providers and payers who share data seamlessly.
- ▶ Conditions, entry, and end points must be clearly defined, but attempts to control all risk by using narrow or highly stratified entry criteria fail.
- ▶ Risk mitigation measures are necessary and most effectively applied retrospectively.
- ▶ Condition-specific bundles aimed at functional outcomes often reduce surgical and postacute care rates.

to generate cost savings or because enrollment or complexity did not justify continuing (Table 1⁸⁻²¹).

Orthopedic procedures, cancer care, cardiac care, and solid-organ transplant surgery were the most common conditions covered. Similar to the BPCI program from CMS, commercially funded CSBP programs' initiating events commonly occurred at hospital admission for surgical conditions or specialist referral for cancer evaluation. Bundle structures were each defined by payer-provider agreements that covered different combinations of inpatient, outpatient ancillary, and postacute care services, and all included physician services. The covered period varied significantly across the examples. All included some period of after-hospital care, with a few lasting as long as 1 year (Table 1⁸⁻²¹).

Many reports and our interviews suggested the need for, and complexity of, implementing information systems that integrate financial, operational, and clinical data. All insurance executives interviewed said that they felt their claims reporting and payment systems were not equipped to pay bundled claims as single payments and that they would face significant costs to develop such systems (eAppendix [available at ajmc.com]). One representative from a Blue Cross plan suggested that automating bundled payments would cost

Comparison of Commercial Bundled Payment Plans

TABLE 1. Summary of Commercially Funded CSBP Plans Cited⁸⁻²¹

Payer	n; condition(s)	Services covered	Episode period	Cost savings	Current status	Reference(s)
Geisinger Health Plan	117; CABG	Physician, hospital, ancillary, and postacute care	Preoperative, surgery, to 90 days post surgery	5.2% reduction overall; per-patient data not reported	Ongoing	12-14
Pacific Business Group on Health/Health Design Plus Employers Centers of Excellence Network	3450; spine and TJR	Facility, implant, professional fees, ancillary care, and durable medical equipment	Referral to functional recovery	38% reduction in spine surgery; 16% reduction in joint surgery; \$3300 less in out-of-pocket costs for workers; at least \$1.3 million for TJR, and \$1 million to \$2 million for spine surgery	Ongoing	18
UnitedHealthcare	Not reported	Facility, implant, ancillary and professional costs; patient support and education; readmissions within 90 days for surgery-related care	Up to 90 days post surgery	Average savings of \$10,000 per surgery; 25% lower cost on average compared with same metro area. Patients save up to \$1000 in out-of-pocket costs compared with other in-network facility.	Terminated by payer, to move to a newer CSBP model	19
UnitedHealthcare	810; colon, breast, prostate, and lung cancer	Physician, hospital, hospice, care coordination paid as FFS; medication, paid as bundle prospectively	4-12 months depending on cancer type and stage	34% for total cost of care, but drug costs increased 179%	Pilot terminated	11
Central Health	550; osteoarthritis	Physician, ancillary, SW, PT, medication	90 days	25%, due to reduced surgical rate	Ongoing	20,21
UCLA, Kaiser, United, Anthem	Not reported; renal transplants	Physician, hospital, ancillary	6-8 weeks; extended as far as 6 months	12%	Ongoing	16
Aetna, Cigna, United, Humana, Wellpoint	Not reported; solid-organ transplants	Physician, hospital inpatient, outpatient, postacute care, medications	Pre- and post transplant, some up to 365 days	Discounted rates 20%	Ongoing	15
Prometheus/HCI	< 20; TJR	Variable	Variable periods before and after an initiating event	Not implemented due to very low volume enrollment	Terminated	9
Horizon BCBS New Jersey	559; TJR	Physician, hospital, ancillary, drugs	30 days before to 90 days after for TJR	\$524,000 for 559 TJR patients	Ongoing	17
UnitedHealthcare	88; head and neck cancer	Physician, hospital radiation, chemotherapy drugs, inpatient, and outpatient; proton beam therapy and dental restoration not covered	1 year	None reported	Pilot terminated due to complexity and low enrollment	8
UnitedHealthcare	Few; lung, breast, colon, and prostate cancer	Radiation therapy	1 year	N/A	Terminated by payer	D. Severino, personal communication via telephone, May 8, 2019
IHA/AHRQ	0; TJR	Facility, professional implant fees; a 90-day postsurgical warranty for related complications	Preoperative, surgery, hospitalization, recovery, and follow-up	N/A	Not implemented due to very low volume enrollment	10

BCBS, Blue Cross Blue Shield; CABG, coronary artery bypass graft; CSBP, condition-specific bundled payment; FFS, fee-for-service; HCI, Health Care Incentives Improvement Institute; IHA/AHRQ, Integrated Healthcare Association/Agency for Healthcare Research and Quality; N/A, not available; PT, physical therapy; SW, social work; TJR, total joint replacement; UCLA, University of California, Los Angeles.

TABLE 2. Comparison of Successful/Ongoing and Terminated Commercially Funded Condition-Specific Bundled Payment Programs

	Successes/ongoing (n = 7)	Failure/terminated (n = 5)
Conditions and bundle characteristics	CABG, TJR, spine, bariatric, transplant; well-defined episode initiator	Cancer, TJR, CHF
Characteristics of payer/provider partners	Centers of Excellence, unified provider-payer systems	Payer driven
Payment systems	Retrospective > prospective; risk mitigation offsets wider inclusion criteria	Retrospective > prospective; risk tiering makes entry criteria too complex
Measures/results	Standardized measurements, PROMs	Numerous quality and PROMs

CABG, coronary artery bypass graft; CHF, congestive heart failure; PROM, patient-reported outcome measure; TJR, total joint replacement.

them about \$6 million. Others noted that creating bundled reimbursement claims processing would have to be done in parallel with existing systems, which could introduce duplication and confusion.

The majority of payments in our commercial examples were settled retrospectively, based on prospectively negotiated case rates. Many of the ongoing commercial CSBP plans carried downside risk for the providers, and almost all had risk mitigation plans in place. Insurance executives noted that many provider systems are not well versed in risk mitigation methods, and this limits opportunities to cocreate CSBP plans. Direct-to-employer plans included value-based benefits such as employee incentives (waived deductible or co-pays) or travel allowances to encourage patients to utilize the provider with whom the employer has negotiated a CSBP.

Almost all of the commercial CSBP plans we reviewed reported cost savings compared with historical experience, although the magnitude of the improvement was highly variable (Table 1⁸⁻²¹). Some plans reported reductions in cost by percentage, others on a per-enrollee basis, making direct comparisons difficult. Furthermore, assessing the true cost benefits of the CSBP programs was obscured by the fact that there are no contemporaneous control groups. Many other cost reduction efforts occurred in participating health systems while CSBP models were being pursued. In general, where quality outcomes were reported, there was no diminution compared with historical controls^{5,22} and patients have reported improved satisfaction when receiving care in a CSBP model.²³

CSBP Successes and Failures

Table 2 summarizes general characteristics of successful and unsuccessful CSBP plans. Inclusion criteria for the cancer care programs at MD Anderson and Moffitt Cancer Centers were complicated and risk stratified.⁸ These plans failed to enroll sufficient numbers of patients, either because the entry criteria were too strict because they attempted to narrowly define risk strata or because the provider teams overestimated the potential number of enrollees. Likewise, the Prometheus pilot struggled to enroll patients because of complexity

of the patient classification, definitions around what services were included and excluded, and lack of clarity around distribution of financial rewards from the bundles.⁹ These definitional hurdles also contributed to preventing the total joint replacement project in California from getting off the ground.¹⁰ UnitedHealthcare's large oncology group practice pilot in 2009 enrolled more than 800 patients and demonstrated a reduction in all costs except chemotherapy drug costs, despite a concerted effort to implement best chemotherapy prescribing practice.²⁴ This pilot was terminated because of increased drug costs.¹¹

All insurance executive interviewees reported that their organizations were highly interested in pursuing CSBPs (eAppendix). However, the executives noted similar concerns in describing their reluctance to enter into CSBP arrangements. Four of the 5 cited the need to find provider organizations that were sophisticated enough to define the conditions without being restrictive. One commented that “the providers need to ‘serve bundles up’ to the payer.” The insurance executives agreed that creating entry criteria that were broad enough to ensure adequate participation but narrow enough to limit the downside risk for outliers was a key factor. Two of the 5 suggested that their companies were not ideally positioned to strike this balance, also noting that close cooperation with interested providers was essential for this process. One executive noted that his company was not ready to “handle risk with retrospective payments.”

The experience of Geisinger Health System (GHS) with CSBPs for elective coronary artery bypass grafts (CABGs) provides insights into successes with the bundled care model.¹² GHS leveraged its integrated system by partnering with its own insurance company. This strategy greatly facilitated the integration of financial and clinical/operational data to arrive at realistic pricing for its CSBP plan.^{13,14} They reported slight improvement in costs overall, a reduction in postacute care utilization, and no significant change in quality outcomes. Insurance executives interviewed noted that they were unaware of other providers in their markets that are willing to consider downside risk like GHS' warranty.

By far, solid-organ transplantation represents the longest-running experience with successful commercially funded CSBP plans. In 2010, Congress commissioned the Government Accounting Office (GAO) to collect information about commercially funded bundled payment programs.¹⁵ The GAO reported, “The [5] largest national payers stated that they have routinely bundled payments for solid organ and bone marrow transplants for over 20 years, and a few had bundled payments for other services.” In addition, Kaiser Health System and University of California, Los Angeles' renal transplant program have been operating under a similar bundled payment mechanism since the late 1980s.¹⁶

Transplantation is served by a robust publicly available national data system, the Scientific Registry of Transplant Recipients,²⁵ in which process and outcome measures are standardized across the country. This provides a single source of truth that enables payers and providers to share a common understanding of the quality of care being delivered. Payers use these metrics to select high-volume,

high-quality centers (so-called centers of excellence [COE]) to negotiate discounted bundled case rates. Importantly, the GAO reported, “The payers told us that they typically did not adjust for the severity of the patient’s condition beyond the inherent severity adjustment included in the Medicare Diagnosis-Related Group risk strata. Four of the [5] payers also told us that they had established outlier provisions to limit the financial risk to providers. The payers provided additional per diem payments when outlier thresholds, which were based on a limit of total days or a threshold of total charges for the episode, were reached.”¹⁵ Notably, all insurance plan executives we interviewed indicated that their companies process the bundled payments manually because their automated systems can only handle separate fee-for-service physician, ancillary, and hospital claims. Although financial results of the specific commercially funded CSBPs for transplant care are not published, at least 1 payer described a 59% reduction in overall costs for transplantation due to improved processes and discounts in agreements with selected COE operating under their CSBP program.²⁶

Since 2011, Horizon Blue Cross Blue Shield of New Jersey has taken an aggressive approach to implementing CSBPs for a variety of diagnoses including cancer (breast, colon, lung, prostate), bariatric surgery, colonoscopy, CABG, joint replacement, hysterectomy, pregnancy/newborn, and substance use disorder with behavioral health, among others.²⁷ Planners prospectively engaged physicians from the respective specialties to develop common measures, best practices, and standardized care pathways. The payment structure is based on historical claims data and originally included only upside risk. More recently, downside risk has been included, and the plan includes a stop-loss provision for outliers exceeding 115% of acuity-adjusted costs.¹⁷ Early adopters of the orthopedic program noted that “the program is transitioning enrolled practices to a more easily adopted historical practice-based budget that does not adjust each individual patient episode relative to severity.”

Building on the COE models, 2 newer CSBP movements have emerged. The Pacific Business Group on Health/Health Design Plus Employers Centers of Excellence Network has developed a direct-to-employer program in which CSBPs are created for high-volume, high-quality centers delivering spine, total joint, and bariatric surgical care.¹⁸ In these models, bundles included many services not typically allowed in fee-for-service reimbursement for these conditions. Co-pays and coinsurance are waived for employees who enroll. Workers participating in this plan have received an almost \$3000 reduction in out-of-pocket expenses and experienced excellent outcomes. And, largely through reductions in surgical rates, the program has reduced costs by \$1.2 million for joint replacement and by a similar amount for spine surgery.¹⁸

UnitedHealthcare has recently introduced another direct-to-employer CSBP plan for spine and joint replacement surgery,¹⁹ similar in design to the Pacific Business Group on Health program. High-volume, high-quality programs are eligible to participate. Costs for employees’ travel and lodging are covered by the employer’s plan. Preliminary results indicate average savings of \$10,000 per

case, which is a 25% lower cost, on average, compared with similar care in the fee-for-service market. Patients save up to \$1000 in out-of-pocket costs compared with what they would have paid for care by another provider in their local market.

Consistent with the experience with CSBPs for joint replacement and spine surgery, we have developed a similar approach in our Musculoskeletal Institute at University of Texas at Austin Dell Medical School.^{20,21} Our multidisciplinary, interprofessional teams focus on achieving patient-reported outcome goals defined by our patients using the Integrated Practice Unit model as first described by Porter and Teisberg.²⁸ Like the COE examples above, our approach reduces the surgical rate by approximately 30%, with two-thirds of our intent-to-treat population reporting improved pain and function regardless of whether they were treated with surgery, physical therapy, weight loss, cognitive behavioral therapy, injections, bracing, or other treatment modalities (K. Koenig, oral communication, August 20, 2019).

Summary

Informative themes can be drawn from our analysis of commercially funded CSBPs. Structurally, successful CSBP plans define the services included and clearly delineate start/end points. However, narrowly defining the covered condition to limit all risk for complications and cost outliers tends to make the program too complex and constrain enrollment. Successful plan creators have used less restrictive inclusion criteria and mitigated downside risk through stop loss, reinsurance, or including some adjustment for historical postacute care costs in the bundles, as seen in transplantation, Geisinger CABG, Horizon Blue Cross, and more recent direct-to-employer plans.

In the more successful examples, commercial payers have sought high-performing, high-volume centers to cocreate these programs. These centers, by virtue of having previously achieved high volume and quality, likely have already dedicated resources to standardizing care pathways and procedures; have data systems in place that integrate clinical, administrative, and financial data; and benchmark their results against national norms. The Geisinger CABG, solid-organ transplant, Pacific Business Group on Health, and recent UnitedHealthcare direct-to-employer models all share these same traits. Supporting the notion that highly integrated provider systems are predisposed to be successful with CSBPs regardless of payer, Navathe et al found that BPCI providers achieving the most cost savings were more likely to be larger, higher-volume, not-for-profit, and integrated with postacute care facilities.²⁹ Moreover, consistent with the experience with shared decision-making,³⁰ the direct-to-employer CSBP plans have seen a reduction in surgical rates while maintaining quality outcomes and achieving high rates of patient satisfaction.

Benefit redesign is attractive for direct-to-employer plans because the medical savings and employee productivity gains from lowering rates of surgery and postacute care accrue directly to the employer. These results indicate the advantages of outcome-focused bundles in which patients’ functional improvement drives the care more than

just the conduct of a procedure. In the case of orthopedic conditions that impair employees' ability to work, the employer, provider, and patient are all aligned on improving a functional outcome so the employee can return to work. In short, these condition-specific care models are driven by pursuing specific patient-centered outcomes, regardless of whether surgery or postacute care is involved.

CSBP-driven quality improvement has been modest and variable. In the absence of contemporaneously controlled trials, it is difficult to assess how much quality improvement is attributable to CSBP programs relative to general quality improvement occurring at the same time in the participating providers' facilities. Nonetheless, there are indications that patient and provider satisfaction can be improved under CSBP models.^{13,31}

Both payers and providers have cited a need to develop automated claims processing for CSBPs. As noted, many of the insurance executives we interviewed indicated that they process CSBPs claims by hand. Likewise, providers struggle with delivering patients a single accounting of all services provided in a CSBP. For these alternative payment systems to scale significantly, and to minimize the costs and administrative burden, electronic health record vendors, providers, and claims processors will need to develop automated systems to aggregate what have traditionally been multiple fee-for-service bills into a consolidated claim. Provider systems driven by volume, or those with less-than-aligned physicians, face disincentives for pursuing CSBP because, as the successful programs demonstrate, surgical/hospitalization rates decrease when the care is focused on functional outcomes. Self-insured employers and others who bear the financial risk for the health outcomes of the populations they serve will have to drive the CSBP systems forward because they are the risk-bearers who have the most to gain in striving for the Quadruple Aim.³² ■

Author Affiliations: Dell Medical School, University of Texas at Austin (RF), Austin, TX; Brown University School of Professional Studies (RF, JC, JK), Providence, RI; Brown University School of Public Health (JC), Providence, RI; Boston University School of Public Health (JK), Boston, MA.

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Address Correspondence to: Richard Freeman, MD, Dell Medical School, University of Texas at Austin, 1601 Red River St, Austin, TX 78712. Email: richard.freeman@austin.utexas.edu.

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eAppendix. Insurance plan executive interview themes

<ul style="list-style-type: none">• Episodes need to be high volume, high quality and scope well defined.• Look to providers to provide clinical definitions.• Initiating events need to be well-defined and likely at hospital level.
<ul style="list-style-type: none">• Aligned hospital, physician, ancillary, and post-acute care leaders are essential• Data sharing across payers and providers• Risk sharing across payers and providers• Need more sophisticated claims aggregation/processing
<ul style="list-style-type: none">• Plans more interested in sharing both up and downside risk• Prospective payment attractive for budget consistency• Some plans not ready for retrospective payment reconciliation
<ul style="list-style-type: none">• Plans want to use established quality measures• Center of excellence model is attractive• Plans have less experience with PROMs