COMMENTARY

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EARLY EDITION November 2017

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healthcare financial management association hfma.org

# of noise and signal

why bundled payment keeps moving forward

Bundling payment provides a clear signal to all providers engaged in treating a patient within a particular episode of care, such as total joint replacement, clearing away the noise of many different treatment approaches resulting from poor care coordination.

AT A GLANCE

- Even as the federal government struggles to define a clear policy with respect to the future of bundled payment, states and health plans have moved forward unhesitatingly with deliberate initiatives that indicate a clearer vision for the future of the healthcare industry.
- On the state level, bundled payment initiatives are well underway in Arkansas, New York, Ohio, Pennsylvania, Tennessee, and Texas, in particular.
- Among health plans engaged in such initiatives, Cigna and Horizon Blue Cross Blue Shield of New Jersey are both actively implementing bundled payment models within their portfolios of value-based payment approaches.

On Aug. 11, 2017, *The New York Times* published an opinion piece by Robert Andrews, CEO of the Health Transformation Alliance, with the provocative title "On Health Care, Who Needs Congress?" A former Democratic congressman from New Jersey, Andrews details the efforts of 41 large, self-funded employers to drive positive changes in healthcare payment and delivery using data and the alliance's collective purchasing power. His essential point is that private-sector business interests are not waiting around for politicians to take the lead in transforming the nation's healthcare system.

Likewise, with the recent implementation delays and cancellations of mandatory rules by the Centers for Medicare & Medicaid Services (CMS), one might ask a similar question: "On bundled payment, who needs CMS?" The proliferation of state-based and private sector efforts around bundled payment provide ample evidence from across the nation that patience with administrative agencies is similarly lacking. Simply put, many organizations are forging ahead anyway.

The point here is not that CMS is irrelevant or that it can't or shouldn't play a vital role. The agency absolutely can and should. On the other hand, CMS definitely should take care not to rush in with mandatory bundles that are, however well intended, riddled with design flaws because they were pushed through without sufficient planning and review.

Indeed, CMS's has been criticized for issuing poorly fashioned and overly complex rules, and a strong case can be made that these criticisms are valid. Some flaws inherent in CMS's approach were highlighted earlier this year by François de Brantes, vice president and director of the Altarum Center for Payment Innovation, in a *Health Affairs* Blog.[a] Among the flaws de Brantes cites are an insistence on basing bundled payment definitions on DRGs, an unwillingness to consider anything other than hospitals as participants, a lack of credible severity adjustments, poor ties to quality measures, and a constant tendency to change program parameters, which can be demoralizing to healthcare constituents.

Calling a halt to CMS's bias towards acute inpatient facilities is arguably an important positive step because it opens the door for the agency to consider physician-led efforts to create bundled payment offerings. Indeed, the Medicare Access and CHIP Reauthorization Act (MACRA) of 2015 authorized the creation of the Physician-Focused Payment Model Technical Advisory Committee (PTAC) to consider these alternatives. And earlier this year, PTAC collectively approved a proposal submitted by the American College of Surgeons (ACS) and Brandeis University that addresses these concerns.[b] The PTAC decision to recommend the ACS model is a breakthrough because of its great potential to spur physician-led delivery system innovation.

Nongovernmental Initiatives: Case Examples

Below the turbulent federal surface, steady progress is being made in calmer waters by states, private-sector health plans, and employers, of which the Health Transformation Alliance is an example. At the state level, Arkansas, New York, Ohio, Pennsylvania, Tennessee, and Texas each are forging ahead with bundled payment programs. All of these initiatives warrant a close look, but only four are highlighted here for space considerations.

Tennessee. In December 2014, as part of its larger Health Care Innovation Initiative, the state of Tennessee issued a memorandum to all of its TennCare managed care organizations (MCOs) asking them to implement payment models covering episodes of care (EOCs) for three conditions or treatment areas—total joint replacement, hospitalizations for acute asthma exacerbation, and pregnancy—or risk losing their contracts with the state.

What is notable about the TennCare EOC payment approach is how comprehensively the state researched and designed the bundles. For instance, the pregnancy episode includes prenatal care, delivery, postpartum care and treatment of complications, and readmissions of the mother.

The sweep of episode types also is noteworthy, encompassing not only the expected procedural episodes but also several forms of chronic care and behavioral health bundles, all with an eye toward aligning provider incentives grounded in evidence-based guidelines and preventing ineffective care. The state is currently on track to achieving its goal of 75 episodes by the end of 2019.[c] Arkansas and Ohio have similar programs, and Arkansas' efforts now also include commercially insured plan members, not just Medicaid beneficiaries.

New York. The state of New York has a different approach. Less oriented to a pure EOC payment model used by Tennessee, the New York Department of Health aims for a more hybrid mix of episodes and population payments under its Delivery System Reform Incentive Payment (DSRIP) Program, hoping to have 80 to 90 percent of all dollars flowing from its Medicaid MCOs to network providers in value-based payment contracts by the program by the program's fifth year. An important aspect of the

a. De Brantes, F., "Medicare's Bundled Payment Programs Suffer From Fatal Flaws, But There Is a Logical Alternative," *Health Affairs* Blog, May 9, 2017.
b. American College of Surgeons, Proposal for a Physician-Focused Payment Model: ACS-Brandeis Advanced Alternative Payment Model, Dec. 13, 2016.
c. TN Division of TennCare, "Tennessee Healthcare Innovation Initiative," Accessed on Oct. 25, 2017.

program is its strong emphasis on chronic conditions, behavioral health, and substance abuse. Interestingly, CMS is following suit and recently sponsored a summit on behavioral health payment reform.[d]

New York also has adopted a comprehensive maternity bundle to address its maternity costs, which are widely recognized among the highest costs for Medicaid programs in general.

Unlike the Tennessee maternity bundle—and most pregnancy bundles—the New York State bundle includes newborn costs as well.

Texas. New York's maternity bundle program closely resembles a maternity program developed for Community Health Choice (CHC), a not-for-profit Medicaid HMO serving more than 350,000 underserved members in southeast Texas.[e] CHC decided to pursue a maternity pilot for its STAR population with two of its largest provider systems in Houston (each with 36 percent of CHC's deliveries): University of Texas Health (UTHealth) and University of Texas Medical Branch (UTMB). There were 1,245 completed episodes between the two providers during the pilot's first year (March 1, 2015, through Feb. 29, 2016). This pilot exemplifies how a Medicaid payer and its affiliated providers can work collaboratively to encourage greater prenatal care, discourage C-sections, and reduce premature or other low-birth weight babies.

The CHC bundled payment process reduces the emphasis on high payments for nursery babies in Neonatal Intensive Care Unit (NICU) Levels 2 through 4, and weights payment incentives toward proactive, integrated care that includes socioeconomic factors that affect care processes. Although it is in an early stage, the CHC pilot shows that the systematic collection of quality data—which had not been done in these facilities prior to the CHC pilot—coupled with bundled payments addresses important structural issues related to maternity care and can lead to improved outcomes (and which precludes using DRGs as the payment unit).

The CHC maternity bundle is demonstrating that the costs of pregnancy and delivery are closely tied to the birthweight of the baby, further buttressing the idea that bundled payment for maternity care should incorporate the costs and outcomes of pregnancy, delivery, newborn, and postpartum care.

Pennsylvania. In another state-initiated pilot, the Pennsylvania Public Employees Benefit Trust Fund (PEBTF) engaged in a collaborative effort with a dominant Harrisburg, Pa., hospital and a well-known orthopedic group practice, the Orthopedic Institute of Pennsylvania (OIP), to improve total knee replacement procedures. The initiative used impressive care reengineering processes—primarily under the leadership of OIP's CEO Jack Frankeny, MD—to counter the often-repeated complaint that bundles for orthopedic care are complicated by difficulties hospital systems face in attempting to control patient behaviors following discharge, especially around physical rehabilitation.[f] The PEBTF pilot demonstrated that, where physicians are given a strong role in programmatic design in conjunction with a willing hospital partner, care processes both before *and* after discharge can be absolutely well managed. Even more remarkable, all parties—PEBTF, hospital and orthopedists—proceeded on pure trust; the entire pilot was conducted without a single pilot contract being signed.

Over the course of the first year, 69 patients participated in the pilot. The initiative not only demonstrated that a hospital and physician group can successfully cooperate to improve care, but also elicited largely positive feedback from patients though patient surveys. Moreover, noninpatient, total episode-related costs declined by an average of $4,189 per episode.

d. CMS, Summit: Behavioral Health Payment and Care Delivery Reform, page last updated Sept. 28, 2017.
e. de Brantes, F., and Love, K., "A Process for Structuring Bundled Payments in Maternity Care," NEJM Catalysts, Oct. 24, 2017.
f. Emery, D.W., and de Brantes, F., *The PEBTF Total Joint Bundled Payment Pilot: A Best Practices Summary*, Aug. 30, 2016.

The care redesign processes for better managing preoperative, day-of-surgery, and post-discharge care realized the following noteworthy improvements in 90-day clinical outcomes measures:

- Improvement on functional outcomes at 6 weeks, using the Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC)—85 percent improved
- Discharge disposition following an index admission: Home physical therapy—54 percent; home exercise program—10 percent; skilled nursing facility—6 percent; and outpatient physical therapy—30 percent
- Average length of stay during index admission—2 days
- Readmission within 90 days—1.8 percent
- Surgical Site Intervention within 90 days—0 percent
- Deep vein thrombosis or pulmonary embolism within 90 days—1.8 percent

A particularly noteworthy measure regarding discharge disposition following an index admission is the percentage of patients moved to outpatient physician therapy, 30 percent, because prior to the initiative this measure was 13 percent. This change may appear to modest, but it correlates with an average savings of about $3,600 per patient. This result bears particular emphasis because it proves that it is possible to efficiently coordinate post-discharge care.

One further observation with respect to the PEBTF pilot goes to de Brantes' criticism in his previously cited *Health Affairs* blog regarding CMS's institutional bias towards DRGs. The bundles were conducted with a good-faith agreement, with prospective, severity-adjusted budgets being reconciled after episode completion, while the underlying fee-for-service network contracts remained in place. Although data analysis disclosed that care reengineering processes clearly improved inpatient stay efficiencies, including reduced lengths of stay, because the hospital was charging PEBTF on a fixed DRG rate, no savings to the plan were captured; thus, the average overall episode cost reductions of $4,189 could have been better.

Many private sector efforts also default to DRGs for inpatient bundles. There is clear evidence, however, that it is time to carefully reconsider the industrywide assumption that DRGs constitute the natural unit of bundled payment contracting.

Health Plan Initiatives

Like many states, health plans such as Cigna, Horizon Blue Cross Blue Shield of New Jersey (Horizon Blue), and United Health Care also are committed to pursuing bundled payment as part of their general portfolio of value-based payment approaches—often driven by employer demand.[g] The discussion here focuses on the Cigna and Horizon Blue initiatives.

Cigna. Having nearly 150,000 Tennessee state employees and spurred on by the above-mentioned memorandum, Cigna has been very active developing its EOC payment model, hiring external vendors to help it define clinically robust episodes, enhance its IT and data analysis capabilities, and network contracting techniques. As of this writing, Cigna is actively engaged in a multi-year, multi-state rollout based in the bundled payment work it has been piloting in collaboration with the state of Tennessee.[h]

Horizon Blue. Horizon Blue has an especially aggressive bundled payment program, which it launched well before the Affordable Care Act was signed into law. Like most bundled payment efforts, Horizon Blue started with total hips and knees, but then, over the years, expanded the list to include pregnancy and delivery, colonoscopy, breast cancer, heart failure, lung cancer, and colon cancer. The Horizon Blue bundled payment program includes more than 900 physicians throughout the state of New Jersey. And it's getting results.

A 2015 case study that analyzed claims data outcomes across 200,000 members for

g. WBUR, "Companies Look to 'Bundled Payments' to Lower Health Care Costs," Here & Now, NPR, Host: Robin Young, Nov. 13, 2013.
h. http://anesthesiaexperts.com/uncategorized/cigna-cultivates-bundled-payments/

2013-14 found that patients of Horizon Blue's EOC providers had quicker recovery times for orthopedic procedures and C-section rates than did patients of non-EOC providers.[i] The EOC providers also achieved the following percentages of improved performance over their non-EOC counterparts:

> A 6 percent higher rate in improved diabetes control
> A 3 percent higher rate in cholesterol management
> A 3 percent higher rate in breast cancer screenings
> An 8 percent higher rate in colorectal cancer screenings
> A 5 percent lower rate in emergency department visits
> An 8 percent lower rate in hospital admissions
> A 4 percent lower cost of care for diabetic patients in 2013
> A 9 percent lower total cost of care

The EOC providers results for orthopedic episodes were particularly impressive:

> Percentage of patients requiring knee revisions after replacements (EOC physicians = 1.05 percent; non-EOC physicians = 5.4 percent)
> A 2.4 Percentage of patients requiring hip revisions after replacements (EOC physicians = 2.4 percent; non-EOC physicians = 6.1 percent)
> Average cost of hip replacement (EOC physicians = $24,484; non-EOC physicians = $34,840; inaugural EOC partners = $23,745

The Horizon Blue program is still going strong, progressively accomplishing its Triple Aim goals, adding new episodes (with an emphasis on chronic care), and engaging an ever-greater portion of its network.

Physician Involvement and Collaboration

Many of the programs described here place a strong emphasis on physician involvement in the design of episodes, outcomes measures, and contracting. In the future, it is likely that physician-focused alternative-payment-model contracting will revolve predominately around EOC bundled payment. The implications of this likely trend over the next 10 years or so are profound, and the key implication regarding the need for coordination is well-summarized with the following argument in a 2015 report published by the Robert Wood Johnson Foundation, as follows:[j]

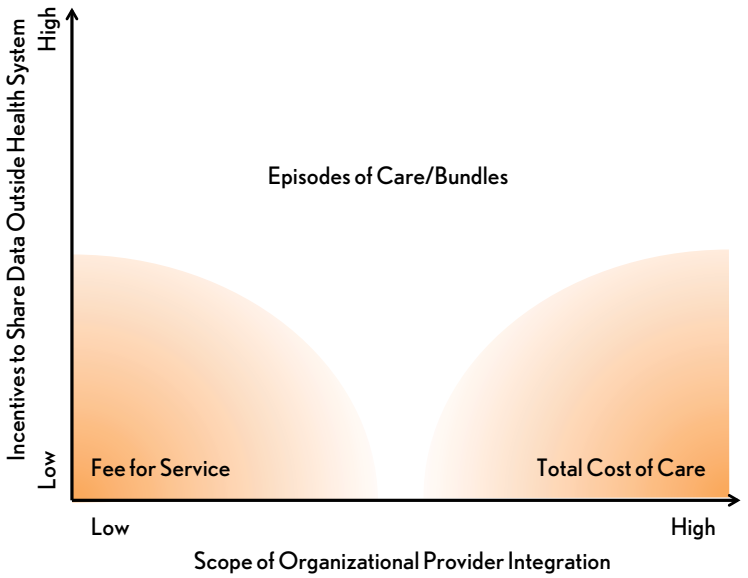
"…as the number and type of episodes expands, and with it, the need for coordinating factor inputs, something remarkable happens to the [delivery system] archipelago: it begins to create links and self-organize around distinct and specialized chains of clinical value. It doesn't matter whether the factor inputs reside in large health system islands or fragmented FFS islands. Contracting for those chains applies the right amount of risk to motivate searches for the right factor combinations to make delivering the value chain products profitable. And to be profitable, the entities that own the factors must coordinate, and to coordinate, they must *communicate*."

The reason for this new dynamic is shown in the exhibit below. The exhibit frames a pathway referred to as *the innovation aperture*, which predicts the impact of different payment models—fee for service (FFS), bundled payment for episodes of care (EOC), and payment covering the total cost of care (TCOC)—on the incentives for provider groupings to share information. Predictably, the lowest level of cooperative data sharing occurs with both FFS and TCOC payment models, where the progressively lower level of data sharing is depicted by the gradient of color from diffuse (more data sharing) to concentrated (less data sharing). In both payment systems, the incentive to keep relevant data trapped within the organizational walls is irresistible because there is no profit to be gained from going to the trouble

i. http://www.hci3.org/wp-content/uploads/2016/02/Horizon-Prometheus-Case-Study-4-Feb-2015.pdf

j. De Brantes, F., Emery, D.W., and Maldonado, J., "Chapter 5: Why Payment Reform and HIT Interoperability Must Follow the Same Innovation Route," *Health Information Technology in the United States 2015: Transition to a Post-HITECH World,* Robert Wood Johnson Foundation, Mathematica Policy Research, Harvard School of Public Health, University of Michigan, School of Information, 2015.

EFFECT OF PAYMENT TYPE ON DATA SHARING AMONG PROVIDERS AND INTEGRATION OF PROVIDERS



to share data externally or to invest in systems that can do so.

The exhibit shows how, at first, the aperture—i.e., the space between FFS and TCOC payment models— is narrow and confined, much like we see today where bundles are mostly concentrated on procedural episodes like total knees and hips. But as the number and types of episodes expand across the X and Y axes, the need to reach out and coordinate vastly increases. The reason is simple: Being patient-centered and involving natural units of observation and risk delegation, EOC payments promote a level of coordination where, emerging from the noise of multiple providers working in silos (and potentially at cross purposes), a clear signal is heard and understood by all providers who deliver care within the care episode.

This effect becomes all-the-more accented as physician-led models reach a crescendo. If physician groups step forward to be the "general contractors" taking on the risk of managing the costs and outcomes of clinically integrated episodes, then they must consider acquiring the goods and services of necessary ancillary providers/clinical inputs as downstream, supply chain partners.

Moreover, this development speaks to the need, not for buying up bricks and mortar and assets, as hospital-dominated ACOs tend to do, but for achieving virtually integration through heightened HIT interoperability and new, subtle forms of subcontracting to achieve greater efficiencies in competitive markets.

This vision of health care is quite different from the noncompetitive, monopolistic health markets we see today. Instead of hospitals credentialing or owning physicians, we would see the tables turned, with physician-led groups credentialing and contracting with hospitals and outpatient surgical centers, as sourced, supply chain vendors. And not just facilities, but also pharmacy, diagnostics, medical supplies and imaging centers will all compete for physicians' supplier business simply because physicians own the episode of care and not the assets.

So here's a bold prediction: In a patient-centered, EOC world, by the year 2030, no one will be talking about ACOs, medical homes, or population health; these are all structural solutions predicated on the idea that function follows form. In the real world, form follows function, and the structural solutions all have been made obsolete by consumer-driven, competitive markets and highly specialized, digitally interconnected open-value networks, the likes and kinds of which only future innovation can foretell. ■

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INFOGRAPHIC

why bundled payment keeps moving forward

evidence from two pioneering commercial bundled payment programs

The PEBTF, Total Joint Bundled Payment Pilot*

85% IMPROVED — **Improvement on functional outcomes at 6 months**

2 DAYS — **Average length of stay during index admission**

0% — **Surgical site intervention within 90 days**

Discharge disposition following index admission (i.e. episode-triggering)

- **54%** Home physical therapy
- **10%** Home exercise program
- **6%** Skilled nursing facility
- **30%** Outpatient physical therapy

1.8% — **Readmission within 90 days**

The Discharge Disposition for PEBTF Patients Following Index Admission

The objective of getting more patients in an outpatient physical therapy setting moved from **13 percent of patients to 30 percent of patients**.

Average savings of approximately **$3,600 per patient,** proving that post-discharge care can be efficiently coordinated.

Horizon Blue Bundled Payment Program

A bundled payment program initiated by Horizon Blue Cross Blue Shield of New Jersey included more than 900 physicians throughout the state. In a 2015 case study, analyzing claims data outcomes across 200,000 members for years 2013-14, Horizon demonstrated that its episode-of-care (EOC) providers are outperforming non-EOC providers with quicker recovery times.

Results for Orthopedic Episodes

Knee revisions after replacements
EOC: 1.05%
Non-EOC: 5.4%

Hip revisions after replacements
EOC: 2.4%
Non-EOC: 6.1%

Average cost of hip replacement
EOC: $24,484
Non-EOC: $34,840
Inaugural EOC partners: $23,745

The Horizon Bundled Payment Program

- **6%** Higher rate in improved diabetes control
- **3%** Higher rate in cholesterol management
- **3%** Higher rate in breast cancer screenings
- **8%** Higher rate in colorectal cancer screenings
- **5%** Lower rate in emergency department visits
- **8%** Lower rate in hospital admissions
- **4%** Lower cost of care for diabetic patients (2013)
- **9%** Lower total cost of care

* The PEBTF pilot is a collaborative effort between the Pennsylvania Public Employees Health Fund and the Orthopedic Institute of Pennsylvania focused on improving outcomes for joint knee replacement procedures.