



## Bundled Episode Payment and Gainsharing Demonstration

TECHNICAL WHITE PAPER

---

Weslie Kary, MPP, MPH  
September 2013

---

# Contents

- Introduction ..... 3
- Design Principles ..... 4
- Demonstration Governance ..... 5
- Contracting Approach ..... 6
- Episode Selection ..... 7
- Use of Data ..... 8
- Episode Definition Process ..... 9
  - Total Knee Arthroplasty ..... 10
  - Total Hip Arthroplasty ..... 13
  - Unicompartmental Knee Arthroplasty (partial knee) ..... 14
  - Knee Arthroscopy with Meniscectomy ..... 14
  - Diagnostic Cardiac Catheterizations and Angioplasty ..... 14
  - Maternity, Hysterectomy and Cervical Spine Fusion ..... 15
- Administrative Issues and Their Resolution ..... 16
  - Health Plan Issues ..... 16
  - The Hospital Perspective ..... 17
  - The Path to Auto-Adjudication ..... 18
- Other Issues ..... 19
  - Retrospective vs. Prospective Payment ..... 19
  - Risk and Stop Loss ..... 21
  - Gainsharing ..... 21
  - State Regulatory Concerns ..... 21
  - Corporate Practice of Medicine Prohibition ..... 22
  - Population Size ..... 23
- Closing Thoughts ..... 24

This project was supported by grant number R18HS020098 from the Agency for Healthcare Research and Quality. The content is solely the responsibility of the authors and does not necessarily represent the official views of the Agency for Healthcare Research and Quality.

© 2013 Integrated Healthcare Association. All rights reserved.

## Introduction

The Integrated Healthcare Association's (IHA) Bundled Episode Payment and Gainsharing Demonstration ("BEPGD" or "the demonstration") evolved from work that IHA had previously completed with a number of California hospitals to create benchmark reports around prices paid for high-cost medical devices, including orthopaedic and cardiac implants. Funded by the Blue Shield of California Foundation (BSCF), this project originally included a component in which IHA and participating hospitals would model episode-based billing and reimbursement structures for procedures involving the use of these devices.

While IHA was completing its medical device project, the Centers for Medicare & Medicaid Services (CMS) launched its Acute Care Episode (ACE) demonstration, focusing on orthopedic and cardiac episodes. Looking to the early successes in managing device prices reported by ACE participants, the hospitals participating in IHA's medical device project indicated they would rather test episode payment than model reimbursement structures.

During this same period, Geisinger Health Plan was publishing the results of its ProvenCare model, showing improvements in both quality outcomes and efficiency that greatly intrigued IHA's member organizations. The PROMETHEUS Payment® demonstration was also underway, and Francois deBrantes, leader of that demonstration, had presented the PROMETHEUS model

individually to several IHA members as well as at a gathering of the full IHA Board.

The interest sparked across IHA's membership and California hospitals by these events, accompanied by three extant models (ACE, Geisinger and PROMETHEUS Payment) from which to draw desirable design features, created strong support for IHA to launch a bundled payment initiative. In response, IHA crafted a proof-of-concept episode payment pilot supported by the original BSCF grant and supplemental funding provided by the California HealthCare Foundation. The funding provided by the Agency for Healthcare Research and Quality (AHRQ) allowed the expansion of this original proof-of-concept pilot over three years into the much more ambitious BEPGD. While available funding and scope were greatly expanded for the BEPGD, from the perspective of IHA and demonstration participants, the project was a continuous evolution from the early work with devices through the completion of the BEPGD. Many of the key decisions and approaches to design and implementation that were applied during BEPGD were actually developed during the initial pilot stage.

This white paper describes the issues and decisions that arose over the course of all of IHA's work to help health plans and providers interested in pursuing episode bundled payment navigate the myriad of technical challenges and details involved in its implementation.

In September 2010, IHA was awarded a 3-year, \$2.9 million grant from the Agency for Health Research and Quality (AHRQ) to implement a bundled payment strategy in California. The project, titled *Bundled Episode Payment and Gainsharing Demonstration*, aimed to test the feasibility and scalability of bundling payments to hospitals, surgeons, consulting physicians and ancillary providers in the California delivery system and regulatory environment. Issue briefs, practical tools such as episode definitions and contract language, and other resources are available at [www.iha.org](http://www.iha.org).

## Design Principles

Several key principles were established in early design discussions and maintained throughout the BEPGD.

These included:

- 1. Exclusive focus on procedural episodes.** IHA participants agreed to focus exclusively on procedural episodes vs. contemplating episode payment to reimburse the care of patients with chronic diseases. IHA members have significant experience with capitation, and preferred that approach over episode payment for primary care; the demonstration was designed to test episode payment as a mechanism to align incentives between specialist physicians and hospitals.
- 2. Common framework.** All parties agreed that the demonstration would establish common episode definitions that would not be modified by individual negotiations. The group sought to establish common administrative parameters and processes, so that a provider implementing episode payment under multiple health plan contracts would face the same administrative requirements for each plan. The third component of the common framework was the calculation of historical episode costs using common report specifications across health plans.
- 3. Risk-based contracts.** Another principle was that providers would accept risk for the episode as defined and keep any efficiency savings they were able to generate—in other words, the episode payment was a fixed case rate rather than a shared savings arrangement.
- 4. Application of warranty provisions.** All participants were interested in testing whether the type of “warranty” that Geisinger had pioneered in their ProvenCare model could work in a non-integrated environment. For health plans, including the warranty was a non-negotiable condition of their participation but providers were equally interested in trying the warranty concept as a way to demon-

strate both accountability and differential value in the commercial marketplace.

- 5. Any willing participant.** Any organization in California which expressed interest was invited to join the IHA demonstration. The actual implementation of bundled payment was predicated on executed contracts between providers and health plans, with all participants retaining the freedom to choose with whom they would ultimately contract. The contracts did not apply specifically to the demonstration; rather, they were expected to be amendments to existing contracts between health plan and providers, spelling out special provisions for the bundled payment in the same way that the two parties might negotiate a transplant case rate.
- 6. Automated billing and claim auto-adjudication.** Although all parties recognized that special handling for billing and claim processing would be required initially, both health plans and providers were explicitly looking to develop definitions and administrative parameters that could ultimately allow automatic billing by providers and auto-adjudication by health plans.

IHA imposed two additional design requirements on the demonstration:

- 1. No price discussions or transparent price data.** In deference to anti-trust considerations, there could be no discussions of price or any aspect of price during group discussions. Additionally, although IHA established a common data framework to calculate historical episode price, the health plans provided the actual reports directly to each provider without sharing this information with IHA.
- 2. Continuing availability of service level data.** All providers were required to provide complete fee-for-service (FFS) billing to the health plans during the episode for “no pay” claim processing,

even for services that were provided during the warranty period and after the episode payment had been made. This requirement was designed to

ensure that vital administrative data about actual services rendered to patients were not lost due to the change in billing structure.

## Demonstration Governance

The initial governance structure for the demonstration included three committees: a clinical committee charged with episode definition and quality measurement; a contracting and administration committee charged with developing both the contracting model and administrative infrastructure for episode payment; and a data/reporting committee that was intended to establish the data architecture and reporting formats. Decisions were made by consensus, with IHA making the final decision on issues that could not be solved via the consensus process.

The initial structure proved a bit unwieldy, requiring that all participants send representatives to three committee meetings. The provider representatives on the contracting and administration group, who typically worked within the hospital's managed care and finance departments, wished to exert more control over episode definitions that would ultimately determine the financial risk assumed by the hospital through the contracting process. IHA also struggled with the role of the technical committee. Over time it proved more effective for the contracting and administrative group (which represented the end users) to approve

report formats and for the project data consultant (Optum, formerly Ingenix Consulting) to work individually with the health plan data representatives on how to run the reports within each plan's data infrastructure.

The start of the BEPGD also marked the start of a revamped governance structure. The new structure comprised a technical committee with clinical, contracting and data representatives working in concert on the new episode definitions, and a steering committee charged with providing final review and approval of the definitions and strategic oversight of the demonstration.

IHA also added representatives from two major claim software vendor companies, McKesson and TriZetto, to both the technical and steering committees. These organizations were actively developing claim administration software for bundled payment, and their representatives added valuable ideas about how to structure the definitions to facilitate auto-adjudication. Additionally, both firms built the IHA episode definition specifications into their beta versions of bundled payment claim software, providing an important test of administrative feasibility.

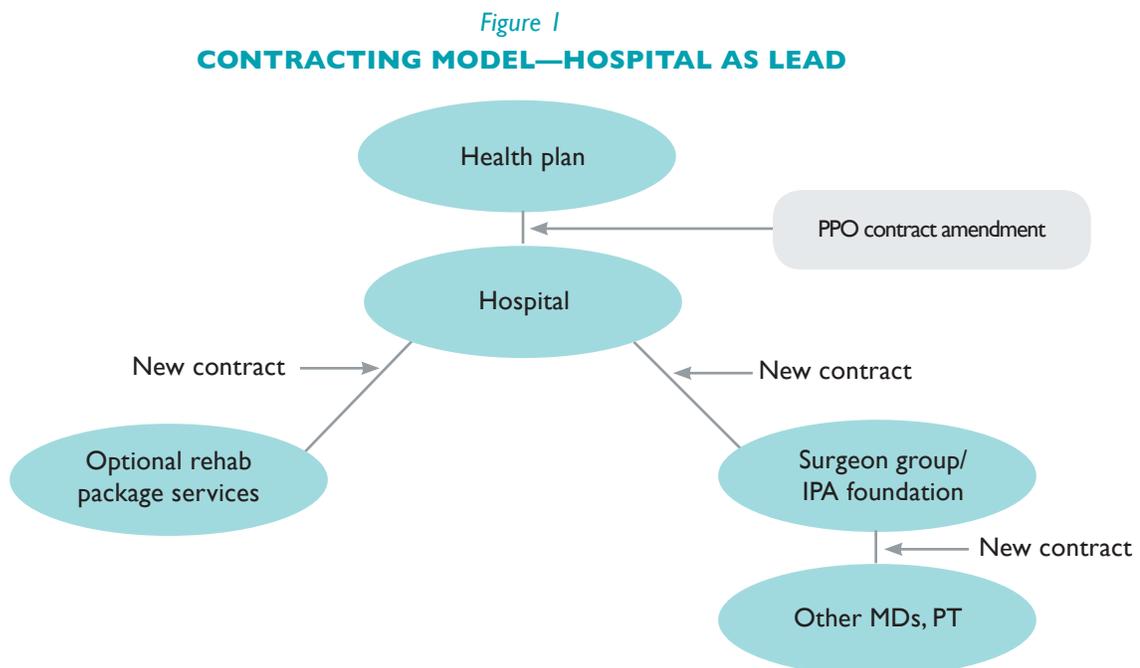
## Contracting Approach

Going in to the demonstration, IHA established a principle that the actual implementation of bundled payment would be governed by individual PPO contracts between the participating health plans and the participating providers. Negotiation of all provisions within those contracts would be confidential to the negotiating parties and the parties were free to modify any provision established by the demonstration group except the episode definition.

IHA did not attempt to standardize the contracting structure but anticipated participants would use a structure similar to the one shown in Figure 1. In this structure, there is one contract between the health plan and the general contractor organization (or “bundler,” typically a hospital) and a set of contracts with similar provisions between the general contractor and subcontractors for the bundle, typically physician groups. The contract between the health plan and the general contractor was assumed to be an amendment to an existing PPO agreement; the contract between the general contractor and subcontractor would be a new stand-alone contract specific to the demonstration.

Participants were free to contract selectively; there was no requirement that every participating health plan had to contract with each provider or vice versa, although all participants were asked to commit to negotiating in good faith towards executed agreements. Similarly, the bundler could contract selectively with subcontractors—for example, contracting only with surgeons who performed more than 200 joint replacements annually. Each health plan required that every subcontracting physician already have a contract as a preferred provider within the health plan network, reasoning that it could not communicate to members that a physician was preferred for a particular episode but not for other procedures. This selective contracting further exacerbated volume issues for the demonstration by limiting the number of participating surgeons; however, both health plans and hospitals were in favor of the approach as a mechanism to ensure the quality of services provided to members under the demonstration.

While all participants were conceptually in favor of the contracting structure, all noted that obtaining



the internal legal resources to draft the contracts was a significant obstacle. IHA used grant funds to help address this issue. While neither IHA nor its retained counsel, Davis Wright Tremaine LLP (DWT), could provide legal advice to participants, IHA asked DWT to create contract templates that might help participants accelerate their internal processes around legal issues. IHA also engaged DWT to present the anticipated contracting structure in a

conference call, and the internal counsel of each participating provider group was able to ask DWT questions about both the contracts and underlying legal issues of implementing episode payment in California.

The participating health plans each developed their individual versions of a PPO contract amendment, but all noted the sample contracts were a significant help in accelerating this process.

## Episode Selection

IHA's clinical workgroup, and later the technical committee, was given authority to approve the selection of procedures for inclusion in the pilot. The workgroup assessed potential procedures against four primary criteria:

1. **Impact.** Is there sufficient volume in target populations? What is the total spend on these procedures?
2. **Quality improvement potential.** Is there variation in procedure execution despite consensus on care pathways and appropriateness criteria?
3. **Efficiency improvement potential.** Is there significant cost variation that is not related to negotiated reimbursement levels? What is the potential for savings?
4. **Participant engagement.** How large is the service line? How motivated and engaged are the physicians, hospitals, and health plans that would be contracting for the episode?

The group intentionally did not assign weights to these criteria. Procedures were chosen by a consensus process. There was unanimous support for beginning with knee and hip replacements, given the cost variation that IHA had documented in its previous work on implant costs and the early successes of ACE demonstration hospitals with orthopaedic procedures. Once

the issues with small sample size in commercial populations for these two procedures became apparent, the committee began to rely more heavily on national data supplied by Optum that ranked procedures based on volume, standardized cost and variation. Impact (volume) was the primary criterion for selection of the cardiac catheterization and stenting procedures.

Although procedure and selection decisions became more data driven over time, practical considerations continued to play a role as well. For example, cholecystectomy ranked highly on volume and variation, but one health plan vetoed this procedure based on the perception that the procedure was actually highly standardized, with variation arising only from outlier providers who would likely not be participating in the demonstration. Health plans were originally very interested in bundling coronary artery bypass graft (CABGs) procedures, which ranked highly on volume and cost based on national data. Participating hospitals indicated, however, that the volume of these procedures in their facilities (and in California in general) was too low to warrant the effort of implementing bundled payment. Other factors also played a role in episode selection. For example, IHA chose knee meniscectomy specifically to expand the demonstration into the outpatient procedure realm.

## Use of Data

IHA made an early decision not to attempt to aggregate data across health plans given the potential delays a data aggregation effort was likely to induce. Also, IHA could not view or aggregate actual cost or price data given both anti-trust and provider confidentiality concerns. To address the need to calculate historical episode costs, IHA chose to develop common report specifications and code that each participating health plan could run against their own data to produce and share historical episode cost data with each of the participating providers.

IHA then contracted with Optum to develop specifications and code to generate the payer reports. Optum also supported episode definition development, and translated clinical specifications into code-based definitions that could be used both as the basis of the planned health plan reports and for claims administration. Additionally, Optum agreed to make information from its national database on the under-age 65 commercial population available to the project.

Optum's national database proved enormously helpful to the project because the net effect of the decision not to aggregate data across plans was to leave IHA otherwise without any data in the early stages of the demonstration project. Ultimately, IHA drew on Optum's national data to support every aspect of episode selection and definition. These data fed reports that ranked procedures by volume and standardized costs, answered definitional questions such as the frequency of use of specific procedure codes within a code family, and were used to estimate the portion of charges captured by the IHA definitions and the "value" of specific exclusions built into the definition.

IHA experienced decidedly mixed results with its approach of supplying the health plans with code to run standardized reports for each provider group participating in the demonstration.

1. One health plan succeeded in running all the reports and produced output for each participating hospital. As IHA had hoped, this plan also deconstructed the code and repurposed it to run the reports for other regions and to support negotiations with key hospitals outside of California.
2. One health plan had great difficulty running the reports. Although they ultimately succeeded with reports for the orthopaedic procedures, they found the resource requirements onerous and were extremely reluctant to commit to running reports for any new procedures.
3. One health plan asked for an early version of the code, tested it against an internal database, concluded that procedure volume was insufficient to justify the effort of participation in the demonstration and withdrew. IHA was unable to confirm or deny the validity of their analysis since it had no line of sight into the way the reports were used.
4. One health plan never succeeded in securing the internal data resources needed to run the reports.

Even the health plan that had the most success with the reports later told IHA that the approach was cumbersome. Their usual process was to develop data to support contracting within the regional contracting team; but for the demonstration, IHA worked with their national data organizations. As planned, the national team sent the reports to the regional managed care negotiators, but these representatives were ill-equipped to interpret the reports and therefore reluctant to share them with their counterparts on the provider contracting side of the table. When they turned to their usual channels with questions—their regional data experts—that group struggled to assist because they had not been involved early on with the code development.

In addition, the lack of volume when commercial procedures were split by health plan and by

hospital, made report results unreliable for most participants. Quite a few participating hospitals had no volume at all with the two health plans that were ultimately able to produce reports.

The struggles to provide data to the negotiating teams negatively impacted project momentum, adding months of delay between the completion of the first episode definitions and the exchange of initial data between the plans and the participating providers. Then, health plan reluctance to commit to producing data for new episodes proved a significant obstacle to moving new episodes into an implementation stage.

Two positive outcomes of the approach were:

1. Optum ran the reports against their national data base, which let the participants look at the results of the definitional work against a reliably large number of episodes, something no single payer in California could do because individually they lacked a sufficient volume of episodes.

2. The Wisconsin Payment Reform Initiative, which had elected to adopt large parts of IHA's knee replacement definition, was able to run the reports against their all-payer state data base, quickly producing information across all providers in Wisconsin to jump-start their own bundled payment demonstration project.

A final key issue around data is that the reporting structure developed for BEPGD was tied to detailed claim level data, whereas prospective payment for bundles discourages the reliable coding and submission of individual service bills going forward. The demonstration was not able to test whether participant commitment to providing FFS claims within the bundled payment demonstration would be sufficient to retain detailed service level data over time or whether a separate encounter-based reporting system would be required at some future date.

## Episode Definition Process

Once BEPGD participants had agreed on a specific procedure, IHA engaged a clinical consultant and asked Optum to develop a preliminary episode definition. Optum and the clinical consultant helped with patient selection criteria, identified typical clinical risk assessment strategies for the patient population, and identified coding scenarios that would accompany common complications. This preliminary definition was then presented to the technical committee and the consensus process began. Both the clinical consultant and Optum actively participated in committee meetings to answer participant questions.

Several background decisions and extraneous factors influenced these discussions and the episode definition process:

1. **Common definition.** All participants in the demonstration agreed to include the episode definition—without modification—in the individual contracts governing implementation. While all

other episode provisions could be negotiated between the contracting parties, the fact that the definition could not be changed made it the primary driver of the amount and type of risk that would be transferred to providers that implemented episode payment.

2. **No risk adjustment.** IHA made an early decision not to adopt or attempt to develop a risk-adjustment methodology for the episodes and instead to attempt to limit the demonstration population to fairly low risk patients. The intent was to select the patients for whom any complications occurring during the warranty period might be reasonably assumed to be within the control of the treating physician or hospital. While IHA originally based this decision on timing—coming to agreement on a risk adjustment methodology was likely to add many months to the definition process—it also became apparent over time that existing risk

adjustment methodologies are much better suited to retrospective episode analysis and retrospective payment adjustments than to real-time patient identification and prospective bundled payment. The problem is that risk adjustment typically relies on complex algorithms applied to detailed and relatively long-term accumulations of claim history that are not available in real-time to either the provider or the claim processor.

**3. Weigh administrative complexity.** Most—though not all—members of the group explicitly wished to balance administrative complexity with episode comprehensiveness. The group typically decided not to include services or complications that marginally increased the comprehensiveness of the episode while simultaneously increasing administrative burden. A discussion around extending the episode period to capture late surgical infections illustrates this concept. IHA’s clinical consultant advised that any surgical site infection within twelve months of the procedure is deemed to be caused by the original procedure. Also, a large percentage of infections are not found until more than six months following the original procedure. The group elected to maintain a 90-day warranty period, however, because the longer the warranty period, the more difficult it becomes to process episode payments. Adding further weight to this decision, Optum data showed that as many as ten percent of patients changed insurance coverage during a 90-day episode period, therefore a longer episode period seemed likely to lead to more patients being dropped from the episode payment demonstration.

**4. Plan for auto-adjudication.** The group always looked to identify definitional terms that would allow for eventual auto-adjudication. Using patient selection criteria that would provide both providers and health plans the ability to prospectively identify patients is critical to this goal. In prospective payment situations, the bundler

can set up notes in the billing system and notify surgeons and other providers to bill the bundler rather than the health plan, and also to collect patient coinsurance based on the bundled rate. The health plan can set up a notification in its systems not to pay individual claims, thereby minimizing retrospective claim adjustments.

#### **An important lesson learned:**

Participants were not able to make nearly as much use of the definitions from existing grouper software and other bundled payment demonstrations as had been anticipated because those approaches almost universally relied on coding unavailable at the time of procedure or claim. That is, episode definitions that had been designed for retrospective payment could only be assigned retrospectively. Once participants determined that prospective payment required a prospective view of patient identification, analyzing previous definitions was eliminated as a step in the definition development process.

While each of the above decisions affected the development of all episodes, most other decisions were made within the context of a specific definition. Each definition represented a fresh start in which all previous episode-specific decisions were rethought and became precedent-setting only if they had continuing applicability. Also, while some definitional approaches that were developed later in the demonstration could have improved earlier episode definitions, IHA did not reopen the consensus process on episodes that had been approved as final to capture later enhancements.

#### **TOTAL KNEE ARTHROPLASTY**

One reason IHA selected total knee arthroplasty for its first procedure was that several other initiatives had already developed a definition for the procedure, including the Minnesota Department of Health’s

Baskets of Care initiative<sup>1</sup>, Geisinger Health Plan, the ACE demonstration and PROMETHEUS Payment. Nonetheless, this first definition took almost nine months to complete while the group built consensus around many of the toughest definitional issues for the demonstration.

Important debates and decisions made with respect to the Total Knee Arthroplasty definition included:

**1. Only include patients with an American Society of Anesthesiologists (ASA) Score <3.** For each definition, IHA looked for clinical indicators that would allow prospective identification of a population of relatively low-risk patients. IHA particularly wanted to find indicators that would work for both the providers and in claim adjudication. ASA rating is an imperfect indicator, but was the indicator the demonstration participants determined to be the best way to identify in-patient knee replacements. Demonstration participants told IHA that the indicator is imperfect because the ASA assignment is made by the professional judgment of the anesthesiologist just before the procedure occurs. Thus, although the assignments are based on clinical guidelines, in practice they can vary by anesthesiologist and furthermore are not made early enough to be part of the pre-authorization process when scheduling the surgery. However, the providers agreed that they could make fairly reasonable assumptions at the point of pre-authorization about which patients would be rated ASA 1 or 2 by the anesthesiologists.

The second problem with ASA rating is that it is not on the claim and therefore not available to the health plan for auto-adjudication or for retrospective cost analysis. However, the health plans agreed that a pre-authorization decision based on a presumed ASA rating could work to identify the patients in the claim systems. Additionally, participants agreed that a retrospective assignment of APR-DRG Severity of Illness (SOI) of 2

or less was an adequate approximation of an ASA rating of 2 or less. However, the decision to use APR-DRG SOI level for the retrospective look at episode costs was not without its own problems. While all participating health plans assign an APR-DRG with SOI at some point in their data systems, some health plans make the assignment in separate analysis systems. The need to link data systems to obtain the APR-DRG SOI was one of the reasons some health plans had difficulty running the report package.

**2. Include only patients with Body Mass Index (BMI) <40.** Many practicing orthopaedic surgeons believe that obese patients are more prone to complications from joint replacement surgery. Although the team developing Minnesota's Baskets of Care definition for knee replacement found no solid evidence to support this theory in the literature, they still elected to limit patient eligibility to those with a BMI <35 to address surgeons' concerns. One of the key surgeons at a hospital participating in the IHA demonstration had such strong views on this topic that he asked to address a meeting of the clinical committee to make his argument for applying a low BMI threshold (e.g. 32). IHA's clinical consultant opposed the threshold, arguing that it would seriously limit the number of patients included in the demonstration. Participants also concluded that they could not accurately price a low threshold using historical claim data since BMI has not been reliably coded in claim history. Over continuing protest by the participating surgeon and his facility, the BMI threshold was set at 40 (morbidly obese).

**3. Exclude pre-procedure services from the PPO definition.** This decision was primarily administrative. Since the trigger for the episode was the admission for the procedure, it was assumed that the service providers would bill the health plans directly for pre-procedure services. These bills would have already been processed by the time the

1. [http://www.health.state.mn.us/healthreform/baskets/TotalKnee090622\\_FinalReport.pdf](http://www.health.state.mn.us/healthreform/baskets/TotalKnee090622_FinalReport.pdf)

claim for the whole bundle was submitted. Including these services therefore would have meant that health plans would need to identify and reprocess the pre-procedure service claims as no-pay claims, and then the hospital would have to re-pay the claims out of the episode payment.

**One perspective on unintended consequence:**

A physician representing the medical group at one of the hospitals said, “Yes, a heart attack seven days after a knee replacement is almost certainly related to the procedure. The real cause though is most likely undiscovered heart disease present at admission. You can force us to accept this risk as a related complication. However our likely reaction to control the risk will be to subject every patient to a full cardiac work-up before the procedure, adding \$3,000 to the cost of every knee replacement we do. Is that what you want to have happen?”

**4. Exclude post-acute facilities and rehabilitation services from the standard episode definition for knee and hip replacement.** Participating hospitals were reluctant to take on the significant effort of negotiating new contracts with post-acute providers to provide post-acute inpatient and therapy services within the bundle for purposes of a small demonstration project. Within the PPO environment, participating hospitals would not be allowed to insist that patients see only their contracted post-acute and physical therapist providers. In addition, several of the participating hospitals had a significant population of knee replacement patients coming from outside the immediate local service area. They argued that patients would want to receive post-acute and rehab services close to home rather than close to the hospital. In sum, they were unwilling to assume the risk for services they did not feel they had the mechanisms to manage.

Using Optum data, IHA confirmed that inpatient post-acute services are provided to only a small percentage of commercial knee replacement patients, therefore exclusion of these services was not a major issue for the health plans. Excluding home health and physical therapy services was a major point of contention. The compromise position of offering these services as a separate optional package for the PPO definition pleased almost no one. Hoag Memorial Hospital Presbyterian (hereafter “Hoag Hospital”) was the only participant that planned to contract for the optional bundle. They chose this approach because they had already set up the capability within their separate Medical Travel Program to provide physical therapy to patients immediately following surgery.

**5. Exclude acute myocardial infarction (AMI) as a covered complication of knee and hip replacement during the warranty period.** This exclusion was among the most contentious of issues the group debated. After much discussion in which health plans argued that a heart attack immediately following a knee replacement was almost certainly related to the knee procedure and the hospitals expressed concern about the level of risk, AMIs were initially included as a related complication in what was intended as the final version of the knee replacement definition. After signing off on that version, the hospitals later re-opened the debate, continuing to protest the level of potential financial consequence for an outcome that, while related, was not necessarily under their control. Disagreement among the parties on this issue added several months to the definition discussions.

**6. Exclude readmissions to another hospital.** The most contentious of all definitional issues—and the only issue where IHA exercised its tie-breaking authority—was whether the hospital that performed the original procedure would be held liable for the cost if a patient in the warranty period was readmitted to a different hospital. The pilot hospitals refused absolutely to accept the responsibility,

### An important lesson learned:

DRGs may be valued in episode definition for both the universal availability of the grouper software and the fact that they provide a common understanding of patient classification between providers and health plans. However, they can't stand alone for prospective episode payment because they are assigned post-discharge based on actual rather than anticipated outcomes. For example, a patient who enters the hospital for a routine knee replacement but experiences complications may be assigned post-discharge to a DRG that reflects the complication rather than the original procedure. A better solution may be to base patient selection only on prospectively known factors, such as admitting diagnoses and procedure code; the IHA demonstration did not test that alternative.

adamant that the warranty should cover related complications, regardless of where they were treated. In the end, the health plans agreed to this exclusion when faced with the certainty that the hospitals would not participate in the pilot if participation meant accepting this risk.

The argument that ultimately convinced IHA to exclude readmissions to other facilities is that including them places the patient in the middle. In the absence of a governing contract between the health plan and the readmission facility, the patient is ultimately liable for the charges. IHA worried that patients would be placed in an untenable position during a dispute over readmission charges from a facility not participating in the demonstration. IHA felt that even one such outcome would doom the demonstration with both employers and California regulators.

- 7. Exclude MS-DRG 469 patients (joint replacement with significant comorbidities and/or complications) from the definition.** This exclusion was a mistake that IHA did not fully appreciate until very late in the knee and hip replacement episode discussions. The intent of limiting the

definition to MS-DRG 470 (joint replacement without significant comorbidities or complications) was to exclude patients known to have significant co-morbid conditions at the time of the procedure. This decision followed from the objective to select a lower-risk population for purposes of the demonstration. However, the effect of the decision was to also exclude low-risk patients who suffered significant complications during a routine knee or hip replacement. These were patients whose complications should have been included in the episode by virtue of the warranty provisions, but were excluded by virtue of a post-discharge assignment to MS-DRG 469.

This exclusion had significant cost implications. Optum estimated that excluding patients who would have been grouped to MS-DRG 470 in the absence of complications experienced during the acute period of the episode, but who were grouped to MS-DRG 469 because of those complications, understated historical episode costs by almost 4%.

### TOTAL HIP ARTHROPLASTY

IHA elected to split DRG 470 into separate definitions for knee and hip arthroplasty to reflect the opinions of both the provider participants and the orthopaedic consultant that the resource requirements, and therefore the resource costs, for these two procedures are actually quite different. Unlike Medicare, private health plans typically negotiate separate prices for the two procedures and so they agreed with this approach. Modifying the knee definition to address hip arthroplasty was a quick process with no major areas of controversy. The definition does include different parameters for the optional post-acute bundle to reflect hip-specific rehabilitation pathways.

IHA added hip arthroplasty (and later, unicompartmental knee arthroplasty) in part to increase the potential volume of patients in the demonstration for participating orthopaedic surgeons. In retrospect, IHA might have treated all of these procedures as a single definition with a few variables that drove

different negotiated rates, an approach later applied to the cardiac procedures.

### UNICOMPARTMENTAL KNEE ARTHROPLASTY (PARTIAL KNEE)

Similar to hip arthroplasty, IHA saw the addition of unicompartmental knees as a way to increase individual surgeon volume without a long definition development process.

### KNEE ARTHROSCOPY WITH MENISCECTOMY

Knee arthroscopy was IHA's first outpatient definition. The decision to take on this episode was influenced by the desire of the health plans to take on a higher-volume procedure and to add free-standing ambulatory surgery centers to the demonstration. Moving to the realm of outpatient procedures caused the participants to rethink several aspects of the episode definition that had been developed previously.

1. No ASA rating criterion. For outpatient procedures the ASA rating was eliminated as a patient selection criterion on the assumption that higher risk patients would not have the procedure done in an outpatient setting.
2. Variable warranty period length. While participants initially assumed that the 90-day warranty period would be standard across definitions, they concluded that for this procedure a 30-day period would cover all relevant complications. Since the longer the warranty period, the greater the difficulty in segregating related and unrelated post-procedure claims, shorter warranty periods were used whenever possible for later definitions.
3. A fixed-dollar liability for complications. With this definition, IHA introduced the concept of applying an episode rate adjustment (a penalty) for complications during the warranty period. The approach was developed to address the issue that a complication requiring an inpatient admission following an outpatient procedure effectively comprised the same problems as a readmission to another facility following an inpatient procedure—high costs that

could easily become the patient's responsibility to pay. Under the episode rate adjustment approach, participants agreed that the health plans would pay for all services from other providers during the warranty period, but apply a fixed dollar penalty to the reimbursement of the original facility if any of a set of defined complications occurred. The amount of the penalty would be negotiated individually between each health plan and participating provider.

### DIAGNOSTIC CARDIAC CATHETERIZATIONS AND ANGIOPLASTY

IHA started with five potential episodes that were eventually compressed into two definitions. The two definitions allow for three separate negotiated episodes of care (diagnostic catheterization only, angioplasty one vessel, angioplasty two vessels). The starting definitions were:

1. Diagnostic catheterization, no intervention
2. Angioplasty in one vessel, bare metal stent
3. Angioplasty in two vessels, bare metal stent
4. Angioplasty in one vessel, drug eluting stent
5. Angioplasty in two vessels, drug eluting stent

After much discussion, the group agreed that separate episode prices should apply based on the number of vessels with stent (1 or 2) but not on the type of stent or on how many stents were placed in each vessel.

Precedents established during the definition process for the cardiac procedures included:

1. **Patient selection based on pre-procedure setting rather than on diagnosis codes.** One cardiac consultant advised that organizations would want patients who could walk into the cath lab if they had to, therefore the definitions exclude patients who were admitted to the cath lab from an inpatient setting or from the emergency department.
2. **The exclusion of community-supplied routine follow-up care.** The hospital participants advised that patients are often referred to the interventional cardiologist for just the procedure itself, and

then returned to the primary care physician. Since the hospital could not contract with these primary physicians, they would have no mechanism to track or pay expenses for routine follow-up care provided in the community. The definition does include follow-up care provided by the interventional cardiologist or his or her cardiology group.

**3. Repeat procedures considered a complication.**

The definition treats repeat diagnostic catheterizations within the episode period as “complications” of a poorly performed original procedure.

**4. Use of the “episode rate adjustment” approach.**

The definition applies the “episode rate adjustment” for complications that IHA developed for the knee arthroscopy procedure to in-patient cardiac procedures.

There was serious contention within the group about how best to address the most significant complication that may follow one of these procedures—an arterial perforation leading to an emergency coronary artery bypass graft (CABG). The first difficulty is that there is no indicator in the claim record that differentiates: (a) a CABG that is performed because of a perforation, from (b) a CABG that is performed because that is the appropriate treatment for the level of cardiac disease found during the diagnostic catheterization. Secondly, hospitals strenuously objected to: (a) an initial recommendation that the CABG would be assumed to result from a complication and (b) the disproportionate

level of risk associated with treating a perforation vs. the reimbursements received for the performing the original procedures. They argued that the risk ratio was more akin to the possibility of an admission following a simple outpatient knee arthroscopy than to the risks associated with treating complications of a knee replacement. The debate was eventually resolved by applying the “episode rate adjustment” developed for the knee meniscectomy to the cardiac procedures. The health plans agreed to this approach on the assumption that a perforation would lead to a large claim that would be subject to review and that the review would reveal that an episode rate adjustment was warranted.

## **MATERNITY, HYSTERECTOMY AND CERVICAL SPINE FUSION**

Using the consensus processes and approval mechanisms described above, IHA completed four additional episode definitions for a total of ten completed episode definitions in the BEPGD. These additional definitions were:

1. Maternity comprehensive
2. Maternity delivery only
3. Hysterectomy
4. Cervical spinal fusion

Complete documentation on all IHA episode definitions is available at: <http://iha.org/episode-definitions.html>.

## Administrative Issues and Their Resolution

The IHA demonstration had an explicit objective to identify and address administrative issues inherent in prospective bundled payment. While auto-adjudication was the ultimate goal, all participants understood that manual processing would be required in early stages of the pilot. Administrative issues were many and complex; addressing them manually represented significant effort and expense for both health plans and providers.

### HEALTH PLAN ISSUES

- 1. Avoiding duplicate payments.** This issue—how to ensure that fee-for-service (FFS) bills submitted incorrectly by participating providers were not paid in addition to the full bundled payment made to the bundler organization (typically the hospital)—was the number one administrative priority for all participating health plans. To avoid payment on FFS bills, the health plans needed the ability to turn off auto-adjudication for the patient undergoing the procedure, meaning they needed to identify the patient before any claims were received. The demonstration “solved” this problem by making the determination of patient inclusion part of the pre-authorization process. However, this solution only works when pre-authorization is required for the procedure. Also, while the plans have the ability to turn off auto-adjudication of all claims, they can’t selectively turn off payment for only expenses related to the procedure. The longer the warranty period, the higher the likelihood of inappropriate delays in payment on unrelated claims, potentially causing health plans to miss claim turnaround targets established in their employer contracts.
- 2. Recovering duplicate payments.** Health plans argued for a contractual provision that would allow them to recover duplicate payments made to the bundler. The bundlers were highly resistant to this concept for a number of reasons, including the fact that they would have no contractual basis to recover a payment made to a non-participating provider (e.g., lab). IHA did not include this provision in the BEPGD standard provisions, though such an arrangement may ultimately have been negotiated between the participants.
- 3. Accounting for bundled payments.** Health plans questioned how to book a bundled payment within their employer accounting systems—treat the whole bundle as a hospital bill? Artificially separate the payment into physician, hospital and other provider components? All of the health plans determined that they could not adequately account for the bundles for their self-insured business and elected to participate in the pilot for their insured book of business only (further reducing the patient population in the demonstration).
- 4. Ability to process the claims out of any claim office.** The national plans participating in BEPGD needed the ability to process the bundled payment claims in any claim office since the employer of a patient having a knee replacement in California might be located elsewhere in the country.
- 5. Benefit design changes.** The hospitals and physician groups greatly desired that the health plans incentivize patients to use the participating physicians and hospitals, and favored the patient incentive approach used in CMS’s ACE demonstration. This approach required adding benefit incentives that health plans needed to file as new benefit options with state regulators. Health plans advised that the typical cycle-time for filing, approval, new communication materials and sale to customers was about two years, making the inclusion of these changes impossible within the demonstration period. The demonstration did not include any benefit incentives for use of participating providers.
- 6. Repeated benefit calculation.** Although the health plans envisioned implementing BEPGD as a change to payment only—equivalent to changing from a

per diem reimbursement arrangement to a DRG reimbursement arrangement with the hospitals—they were unable to entirely avoid benefit administration issues. In California, the patients’ share of coinsurance must be calculated on the actual payment made to the provider. Additionally, since bundled payment rates are typically calibrated to an historical average cost for the procedure, it’s possible for patients who use few services to owe more as a share of the bundled rate than they would have owed in coinsurance for the individual services. Similarly, patients who use more services than average can save money under bundled payment. Most health plans elected to hold the patient harmless for the existence of the demonstration, assessing the patient the lesser of what they would have paid in coinsurance on the FFS bills vs. the coinsurance due on the bundled rate.

- 7. Processing “bundle breakers.”** Participants identified a number of scenarios in which a patient who was originally considered to be in the bundle would be later excluded, breaking the bundle and necessitating the reprocessing of all claims under FFS. The most important of these was loss of coverage during the warranty period.

## THE HOSPITAL PERSPECTIVE

- 1. Getting the physician bills directly.** In agreeing to act as the bundler, the hospital took on the responsibility for educating all participating physicians and ancillary providers to assure that bills be sent only to the hospital and not to the health plan. It also seemed likely that both physician and hospital billing systems would need modification to prevent their automatically sending bills to the health plan on record.
- 2. Paying the physician bills.** The bundler becomes the claim payer for all covered services provided to the patient with the bundle and is subject to all state law and regulation around timeliness of claim payment.

- 3. Accounting for and reconciling payments within their own systems.** The providers and health plans were anxious to understand the relationship between payment amounts they would have received under bundled payment versus payments they would have received under standard contract provisions. Those comparisons required tracking payments to two different types of bills for the same services.

- 4. Accurately capturing all related services.** Similar to capitation payments, bundled payments by their nature discourage the accurate coding and reporting of services that will not be separately paid. If physicians are paid a case rate for professional services, including x-rays and other tests, why create a no-pay bill for those services? Given California providers’ previous experience with capitation, their suggested solution was to consider using existing encounter data systems to capture bundled services. The health plans were opposed to the idea of having to add encounter data to their internal claim data to get an accurate understanding of how service utilization was affected by bundled payments.

To address this issue, the hospitals agreed to create a package of the individual claims for all services provided to the patient and to submit all claims after the procedure was performed. The health plans agreed to release the entire bundled payment amount when the first billing package was processed. Hospitals agreed to submit a second package of bills for all services provided during the warranty period, even though at that point they should have been paid in full for the bundle. The health plans agreed to process each of these bills as “no pay” claims to ensure complete data capture.

- 5. Administering the gainsharing program.** Participants recognized that administering a gainsharing program that would be trusted by the physicians required sophisticated data infrastructure and reporting capabilities. While most all of the participating hospitals intended to use gainsharing within

the bundled payment demonstration, none actually did. As one example, Hoag Hospital implemented bundled payment through the mechanism of a joint venture with their physicians, thus negating the need for gainsharing.

### **THE PATH TO AUTO-ADJUDICATION**

To address administrative issues, all participants agreed to begin the demonstration using manual processing. Transplants—which are typically reimbursed by comprehensive case rates and are still often paid manually by health plans—provided the model adopted by most participants. Where possible, the health plans elected to have all bundled payment claims paid from their transplant unit.

Given the magnitude and intractability of the administrative issues, all participants agreed to attempt to resolve issues in ways that could ultimately support auto-adjudication of the claims. Auto-adjudication was obviously desirable on the health plan side, but the providers also wanted to submit claims using their existing billing systems and processes for FFS, retaining only the responsibility of distributing the bundled payment at the back end.

At the beginning of the BEPGD, there were no existing software systems to auto-adjudicate prospectively-paid, commercial bundled payment. While IHA attempted to keep auto-adjudication in mind during episode definition development—for example, to use only information available to a claim processor as patient selection criteria—IHA had no upfront assurance that it could work. McKesson and TriZetto were in the design phase for bundled payment software as the definitions were

being developed. IHA invited both vendors to join the technical workgroup so that they could comment on new episode parameters while the definitions were still under development. The inclusion of these representatives, both highly knowledgeable about bundled payment, was an enormous help in the episode development processes. The vendors came at the definition with a much deeper understanding of the underlying coding structures for the bills and were able to supply the exhaustive code sets for the episode definitions that the health plans required. They offered suggestions for minor modifications to the definitions that could enhance the ease of administration. Both vendors elected independently to deliver their software with a pre-load of the IHA definitions, contributing to the spread of the definitions developed during the demonstration.

During the development of the definitions, health plans indicated that they were not prepared to go to scale with implementing the demonstration until the software was available to adjudicate the claims. Although the software became available during the demonstration, for the most part health plans elected not to implement the claim processing enhancements. Plans cited both the expense of a major system upgrade in the face of uncertain return from bundled payment arrangements and an inability to implement the upgrade within the timeline of the demonstration. Aetna acted as a beta site for the McKesson software and deployed it for its bundled payment contract in southern California, but the small patient population worked against a robust test of auto-adjudication.

### RETROSPECTIVE VS. PROSPECTIVE PAYMENT

Retrospective vs. prospective payment is a phrase that conflates two key concepts in bundled payments—risk transfer and claim administration. Each of these concepts requires a separate design decision.

In theory, these terms convey a choice between (1) making fee-per-unit-of-service claim payments followed by a retrospective reconciliation to a budget versus (2) suspending normal FFS payments in favor of a fixed-fee payment. In this context, the term prospective payment is used in the sense of Medicare's Inpatient Prospective Payment System (IPPS, i.e., Diagnosis Related Group methodology). For Medicare DRGs, the amount of payment is prospectively fixed but is not paid until after a trigger—the hospital discharge—occurs. This interpretation contrasts to true prospective payment approaches such as capitation, where payments are made prospectively for a population.

At the time IHA began its bundled episode payment demonstration, the term retrospective payment had come to mean the shared-savings approach that PROMETHEUS Payment was using in their early pilots. In the PROMETHEUS model, FFS payments were retrospectively reconciled against a budget for the episode, with providers and payers sharing savings (typically 50-50) if total payments were less than the budget. Payers absorb the entire loss if payments are greater than the budget. In other words, providers share only upside risk. The contrasting model at the time was the CMS ACE demonstration that prospectively set a fixed fee for each episode and required a two-way risk share; providers were paid only the agreed upon amount and retained all savings or absorbed all losses to the extent the actual costs of the episode varied from the agreed upon reimbursement. In this model, the savings to Medicare were also quantifiable in advance and assured through the mechanism of setting the fixed payment at a discount to the IPPS payment.

IHA elected to apply a prospective payment methodology within its demonstration project. Participating health plans advocated for this approach in reaction to the perceived complexity of the PROMETHEUS Payment approach compared to the seeming elegance of the ACE demonstration. In addition, those who had lived through the 90's era of rancorous provider relations voiced strong opposition to the idea of ever again tying reimbursement to a retrospective reconciliation process. Health plans also advocated for the two-way risk share because it offered stronger incentives than a shared-savings approach. Furthermore, participants felt that in light of California's long history of managed care and capitation, to begin with a shared-savings approach would actually represent a step backwards along the path of provider accountability. Providers, looking to the successes reported by ACE demonstration participants, were eager to test that model in their markets and therefore readily agreed to the approach that had been used in ACE over the PROMETHEUS Payment retrospective reconciliation approach.

In summary, IHA made a decision about administration that was based primarily, though not exclusively, on the preferred approach to risk transfer. This decision was later called into question. Health plans began to understand the complexities of suspending FFS claim payment in favor of prospective payment and the system ramifications beyond claim adjudication. Concurrently, providers began to understand both the extent of the risk transfer and the additional expense and liability of assuming claim adjudication responsibilities in a structure where one entity (typically the hospital) accepts a team payment then disburses individual payments for all providers participating in an episode.

The definitional link between the payment methodology and the risk-share approach has since been broken by the CMS Innovation Center's Bundled Payments for Care Improvement initiative (BPCI).

All BPCI models require two-way risk sharing, but three of the four models use retrospective reconciliation and one uses the prospective approach pioneered in the ACE demonstration. From an administrative perspective, both approaches have significant pros and cons to be balanced. What is being bundled makes a difference—for example, the

pros of prospective payment may outweigh its cons on an episode for a well-defined team of providers handling a procedure, but not when bundling payment for chronic conditions. Similarly a local health plan may be able to apply non-standard claim payment processes more readily than a national plan where claims are handled by different claim offices.

Approach	Pros	Cons
<p><b>Prospective</b></p>	<ul style="list-style-type: none"> <li>▪ Clearly aligns payment with intent; reimbursement is made to a team of providers delivering care during a defined episode.</li> <li>▪ Provides the bundler with a real-time line of sight into what services are being provided to patients covered by the demonstration (because the bundler receives the bills and pays the subcontracting providers).</li> <li>▪ Providers are able to maintain confidentiality into the distribution of payments among the care team.</li> <li>▪ In combination with a pre-authorization process, clearly identifies up front which patients will be included in the demonstration, allowing for enhancements such as collecting copayments based on the bundled price.<sup>2</sup></li> </ul>	<ul style="list-style-type: none"> <li>▪ Providers are required to change their billing practices. For example, participating physicians should bill the bundler rather than the health plan.</li> <li>▪ Disrupts existing payment processes at the health plan; requires new adjudication software to make scalable.</li> <li>▪ Requires new claim administration processes and expense for the bundler, and subjects the bundler to state claim adjudication regulation.</li> <li>▪ Health plans have less visibility into how payments are distributed, so they are less able to report to their employers what care has been provided to patients (the capitation data dilemma).</li> </ul>
<p><b>Retrospective</b></p>	<ul style="list-style-type: none"> <li>▪ No disruption to provider billing processes; all providers bill the health plan.</li> <li>▪ Health plan continues to capture all services provided to patient and can report them to their employer customers.</li> <li>▪ Allows application of claim data-based risk-adjustment methodologies at the time of payment reconciliation.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Payment is reconciled long after care is received, limiting the usefulness of the payment change as a tool to incentivize care changes.</li> <li>▪ Requires new processes for health plans to credibly report and reconcile payments to the agreed upon payment amount.</li> <li>▪ Requires new processes for the bundler to understand bills and payments across organizations in order to accept or challenge retrospective health plan payment adjustments.</li> <li>▪ Agreements that included downside risk may require use of a health-plan-imposed withhold or provider-based reserves to refund over-payments to the health plan.</li> </ul>

2. In contrast, in retrospective reconciliation, copayments are applied to the individual services and may be over or under-applied based on the actual bundled payment amount post reconciliation.

## RISK AND STOP LOSS

Hiding behind definitional issues was a largely unexpressed contest of wills between the health plans and the hospitals over the issue of stop-loss protection on episode payment. The issue remained unstated in group discussion because stop-loss is a price issue and IHA could not address price due to anti-trust concerns. Participants also specifically requested that IHA not address this issue because of its sensitivity; stop loss was an ongoing subject of individual negotiations between specific hospitals and the health plans over their entire contracts, not just their episode payment contract amendment.

While IHA could not take on this issue in any substantive way, it was clear that many of the most contentious issues about risk transfer—for example, hospital liability for readmissions to another facility—could have been resolved much more quickly had the health plans and hospitals been willing to discuss some explicit form of risk protection for participation in the BEPGD. The “Episode Rate Adjustment” concept—a predefined penalty amount for complications—that IHA developed in the course of defining the first outpatient episode (see knee meniscectomy, above) effectively provided stop-loss protection against the risk of an admission following a procedure performed in an ambulatory surgery center. IHA later applied this same provision to address a virtual provider revolt against the concept of accepting risk for an arterial perforation following a routine diagnostic cardiac catheterization.

## GAINSHARING

The primary draw of the BEPGD for nearly all provider organizations seemed to be the opportunity to implement a gainsharing program with their physicians. The participants expected that this gainsharing program would apply only to commercial patients, and that it would be structured similarly to those employed by the hospitals participating in the ACE demonstration. While IHA was unable to advise participants with concerns about the legality of anticipated gainsharing

programs, IHA did retain counsel to present a general understanding of legal issues related to gainsharing. IHA also organized a webinar on the objectives for gainsharing, an appropriate structure for a gainsharing program, and the special concerns of both hospitals and physicians in considering gainsharing.<sup>3</sup>

Gainsharing is one possible strategy to support clinical alignment between a hospital and its physicians, with others including employment agreements, co-management agreements and joint ventures. To IHA’s knowledge, no participant in BEPGD elected to implement a formal gainsharing program. The administrative effort of building and sustaining a gainsharing program for a demonstration with low patient volume was certainly one concern for participants. However, the driving force behind this decision might have been the availability of other mechanisms for physician/hospital engagement. As examples: (1) Hoag Hospital participated in the demonstration via its joint venture between the physicians and hospital; (2) the surgery centers were owned by the physicians themselves, making gainsharing implicit, and (3) Sutter Health structured participation to include separate contracts between the health plan and the hospitals and the health plan and physicians.

## STATE REGULATORY CONCERNS

In California, plans that involve pre-payment for health care services are regulated by the Department of Managed Health Care (DMHC). PPO plans are typically regulated by the California Department of Insurance (DOI) but for reasons of historical artifact, the DMHC also regulates the PPO plans of Blue Shield of California (BSC) and Anthem Blue Cross, early contracting participants in the BEPGD.

Given this dual regulatory structure, IHA was concerned that the design of the demonstration project not subject PPO plans to additional regulation by DMHC. Furthermore, it was important that the parameters of the demonstration would allow BSC

3. [http://iha.org/pdfs\\_documents/bundled\\_payment/Gainsharing-Webinar-Physician-Hospital-Relationships-in-Orthopaedics.pdf](http://iha.org/pdfs_documents/bundled_payment/Gainsharing-Webinar-Physician-Hospital-Relationships-in-Orthopaedics.pdf)

and Anthem Blue Cross to satisfy all PPO regulations imposed by DMHC exclusively on their plans.

IHA met early on with the Director of DMHC to discuss the design of the program and whether it might invoke DMHC regulation of PPO plans other than those of BSC and Anthem Blue Cross.

The key issues presented were:

1. There is no pre-payment for services. The full bundled payment would be made after discharge for the initial procedure, upon receipt of a post-discharge claims package for all services provided up to that point; a final package of claims is submitted for services provided during the post-discharge period (including charges for complications and readmissions) but no additional payment is processed.
2. No transfer of insurance risk is involved; episode payment is made only if and when a procedure is performed.
3. Decisions about the necessity of the surgery are made through current clinical and medical necessity review processes and would be unaffected by the change to a payment methodology based on the entire episode of treatment.
4. Episode duration would not exceed 90 days, and might only be 30 or 60 days depending on the intensity of the procedure and when complications would be most likely to occur.

The DMHC agreed with IHA's assessment of the issues and later provided written notification that the demonstration as proposed would not invoke Knox-Keene licensure requirements.

In addition, the Director expressed strong support for creating a regulatory environment in California that was hospitable to innovative demonstrations, particularly those that had the potential to improve both quality and price transparency. The idea that bundled payments for procedures could allow consumers to make apples-to-apples provider price comparisons for a pre-defined bundle of services was particularly appealing. To back-up her expression of support, the Director designated

an assistant deputy director as IHA's prime contact within DMHC. This individual became deeply familiar with the project and acted as DMHC liaison to the demonstration, facilitating conversations with others at DMHC who would review the actual contract submissions by the plans.

Because IHA is not a health plan regulated by DMHC, any plan with PPO products under the Department's jurisdiction needed to independently negotiate approval of its bundled payment agreements with DMHC. While IHA was not privy to any discussions between DMHC and the health plans, IHA understood that the primary concerns expressed by the Department were:

1. How did the plan intend to communicate to the enrollee that he was a participant in a pilot program?
2. What information would the plan provide to the enrollee on the subject of the impact of bundled payment on coinsurance amounts?
3. What oversight did the plan intend to provide over the bundler's payment to subcontracting physicians and other providers [because of implied delegation of risk]?
4. What steps was the plan taking to ensure that the hospital had adequate reserves to make these payments, and that the actual claim processes and payments complied with existing regulations governing claim payment?

The need to address these regulatory concerns negatively impacted the demonstration timeline. Anthem Blue Cross had withdrawn from the demonstration early on, but BSC engaged in several months of back and forth communication with DMHC before they were able to implement their BEPGD contracts.

## **CORPORATE PRACTICE OF MEDICINE PROHIBITION**

California law prohibits the practice of medicine by individuals, organizations, and corporations that have not been licensed to practice medicine. This statute generally prohibits hospitals from hiring or employ-

ing physicians or other health care providers. The concern around Corporate Practice of Medicine for BEPGD was whether a hospital as prime contractor (the bundler) could be considered in violation of this prohibition by virtue of executing subcontracts with physicians to provide services within the episode. To address this issue, IHA's sample contracts clearly established that the relationship between parties was that of general contractor to subcontractor rather than an employment agreement. In the sample contracts, the general contractor accepts payment for the entire bundle, but acts only as an agent of the subcontractor in accepting and then dispersing payment for services. The participating hospitals worked with their internal legal counsel to assess whether this type of contractual agreement would adequately address Corporate Practice of Medicine concerns. In the end, the dominant model chosen by the hospitals was to explicitly split the episode services and payments into two components—a bundle and payment for professional services and a bundle and payment for facility services. In addition to addressing the Corporate Practice of Medicine prohibition, this approach satisfied the concerns DMHC had expressed about health plan delegation of financial risk.

## POPULATION SIZE

Population size for episode payment demonstrations need to be considered from several perspectives:

1. What is an adequate total population of patients to make the demonstration meaningful? That is, what gets the attention of the market?
2. What volume of procedures is necessary for a hospital to adequately spread the risk of participation?
3. What is an adequate population of patients to incentivize a physician or group of physicians to change practice? That is, what gets the attention of the doctors?

The number of knee and hip procedures included in the BEPGD ultimately proved insufficient to address any of these perspectives.

IHA participants initially estimated that the

### An important lesson learned:

While participants debated at length about the impact of various clinical exclusions on population size, clinical exclusions were largely extraneous to population size. One definitional exclusion proved the exception to this rule. An Optum analysis showed that requiring the patient to maintain coverage with the same health plan during the 90-day episode period eliminated roughly 10% of potential episodes from the analysis pool. This finding highlights the need to carefully consider the impact of coverage changes during an extended warranty period.

demonstration would include about 500 PPO joint replacement procedures per year. Although IHA was aware of significant market fragmentation—knee replacements surgeries are performed in more than 300 hospitals in California, with only a handful performing over 500 per year—the demonstration benefited from the participation of two hospitals with high orthopaedic volumes: Hoag Hospital and Cedars-Sinai Medical Center. Each of these hospitals averaged about 1800 discharges in MS-DRG 470 annually across all payers and contract types.

The early withdrawal of Anthem Blue Cross, a dominant PPO payer in the southern California market, was a serious blow to the estimate. One participating hospital in southern California indicated that Anthem Blue Cross might represent as much as 50% of their PPO patient volume.

IHA pursued solutions to increase the volume of knee replacements in the demonstration on several fronts. First, to increase overall volume, IHA aggressively recruited high-volume hospitals and succeeded in bringing several key systems into the demonstration. To increase volume per participating orthopaedic surgeon and per hospital, IHA added episodes for hip replacement and for partial knee replacement. Working with one health plan, one physician organization and one health system, IHA also designed an HMO/Medicare Advantage version of the knee and

hip replacement episodes. The other health plans had little interest in an HMO version of BEPGD however, feeling that efficiency issues were adequately addressed by existing capitation arrangements.

An obvious implication of the low patient volumes is that the demonstration did not generate enough adequate sample size to allow for a rigorous impact evaluation. It also exposed how market fragmentation can impact payment reform initiatives as a whole. Hospitals were asked to undergo a significant effort with their physicians that would likely not pay off in

any increased volume. Health plans were faced with the daunting administrative challenges of bundled payment with only modest potential for cost savings.

Demonstration momentum slowed noticeably as volume issues became apparent. Participants faced with competing opportunities for payment reform under the Accountable Care Act increasingly chose to devote those resources to the development of Accountable Care Organizations and to preparing for the acquisition of new populations through the insurance exchange and California's dual-eligible demonstration.

## Closing Thoughts

IHA's Bundled Episode Payment and Gainsharing Demonstration did not succeed in its ambitious goal to rapidly implement episode bundled payment across multiple payers and hospital-physician teams. However, the demonstration did expose and address the myriad details necessary for successful bundled episode payment implementation, producing a wealth of lessons learned as well as useful resources. The demonstration:

1. Produced ten code-based episode definitions that represented a strong consensus across participating health plans, hospitals and physician organizations on how performance risk might be prospectively transferred to providers within the context of different accountability initiatives. The definitions proved adaptable to other geographic locations, as demonstrated by the Wisconsin Payment Reform Initiative's ability to implement the total knee arthroplasty definition with only modest modifications.
2. Developed extensive specifications for historical cost analysis and illuminated flaws in the approach of using retrospective episode groupers to define prospective episode payment. The data approach by which health plans created consistent but individualized historical average cost reports proved cumbersome but feasible, and all participants gained insight into the distribution of episode costs.

3. Defined and successfully deployed a contracting structure with a common framework but individually negotiated terms that satisfied both contracting partners and California regulators. Contract templates developed for the demonstration have been adapted and used by national health plans and participants in other bundled payment initiatives.
4. Uncovered and addressed the challenges to electronic adjudication of episode bundled payments, showing that prospective episode payment is administratively feasible, and providing a framework for further market development of administrative solutions to address the challenges of payment reform.

Collectively, IHA, demonstration participants, and their clinical and technical experts created a set of valuable, practical aids for to all embarking on the challenging path to bundled episode payment implementation. IHA acknowledges and appreciates the untold hours volunteered by demonstration participants as well as the contributions of its clinical consultants. Each of these contributors brought not only essential technical knowledge, but also a firm belief that physicians, hospitals and health plans could work together effectively to improve care quality and efficiency under the framework of a bundled episode payment program.

## **ABOUT THE AUTHOR**

Weslie Kary, MPH, MPP, served as IHA's Program Director for Episode Payment from 2008 through 2011, a period covering the original design of the Bundled Episode Payment and Gainsharing Demonstration. Ms. Kary currently is a Principal Project Specialist in the Health Systems Innovation Group at American Institutes for Research (AIR).

## **ABOUT THE INTEGRATED HEALTHCARE ASSOCIATION**

The Integrated Healthcare Association (IHA) is a not-for-profit multi-stakeholder leadership group that promotes quality improvement, accountability and affordability of healthcare in California. IHA leads regional and statewide initiatives, including the California Value Based Pay for Performance Program. More information and other resources are available at [www.iha.org](http://www.iha.org).

## **ACKNOWLEDGMENTS**

This project was supported by grant number R18HS020098 from the Agency for Healthcare Research and Quality. The content is solely the responsibility of the authors and does not necessarily represent the official views of the Agency for Healthcare Research and Quality. The author acknowledges the assistance and thoughtful comments of Jett Stansbury, Director of New Payment Strategies and Tom Williams, PhD, President and CEO, at the Integrated Healthcare Association.

