



Prometheus Evidence-informed Case Rate (ECR) Contracting Strategies and Guidelines for Health Plans

Introduction

Health Plans using the Prometheus ECRs to contract with providers are faced with a number of issues. This guide is intended to address these issues and provide some strategies and suggested guidelines for addressing them.

Role of the Health Plan

The first issue to address is the role of the health plan in contracting for ECRs. Health plans may contract with existing provider organizations that decide to accept financial risk for complete ECRs or the plan may serve as a “virtual integrator” for providers not otherwise affiliated with each other but willing to participate together for ECR reimbursement. Whether or not a health plan chooses to serve as a virtual integrator depends on the availability and willingness of existing provider organizations to accept the financial and clinical risk associated with ECRs and the resources of the plan to undertake the development of “virtual” provider organizations.

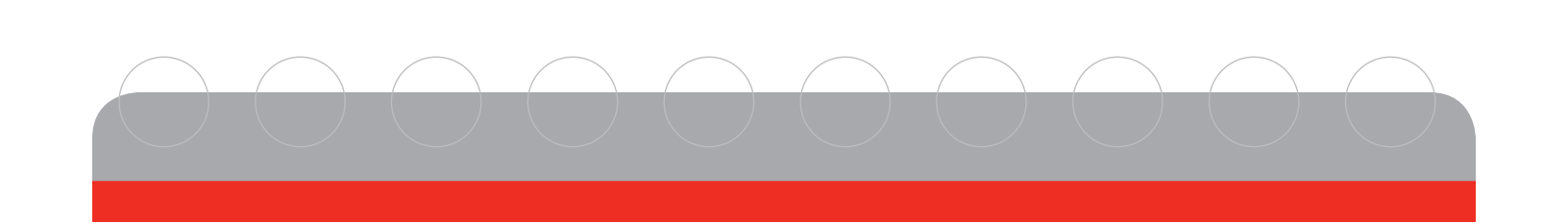
Contracting with Existing Provider Organizations

Many types of provider organizations may desire to contract with a health plan for ECRs including Accountable Care Organizations (ACOs), Physician Organizations (POs), Integrated Delivery Systems (IDSs) or Physician Hospital Organizations (PHOs). Before contracting with a health plan, these organizations, similar to the health plan, have likely conducted an analysis or assessment of opportunities for clinical and financial improvement utilizing ECRs—an ECR analysis or opportunity assessment. Ideally, the ECRs the health plan and provider organization would like to contract

for overlap. Once the plan and provider organization have agreed on a set of ECRs, they must negotiate and agree on the terms for pricing and administering the ECR contracts. Often plans and providers will develop pilot programs whereby they will “operate” the contracts for a specified pilot term (perhaps one-year) while limiting downside and/or upside risk to each other while they work out administrative and methodological issues associated with entering into contracts using the new payment units.

Prospective or Retrospective Payment?

A fundamental question in contracting for an ECR with an existing provider organization is whether payments for the ECR are made prospectively or retrospectively. Episode of care or ECR contracting has long been seen as a potentially effective way to transfer manageable financial risk to providers through a single (global) case rate. This “technical” or “performance” risk transfer enables a provider organization to recognize the financial reward for delivering a complete case for less than the negotiated price. It is commonly perceived that bundling payment along an episode of care requires calculating the total case fee or payment in advance and also paying this total fee upfront or prospectively to the “integrated” provider so the provider organization may in turn



distribute the funds internally. While this prospective payment scenario may be ideal, there are a number of challenges associated with this approach.

Retrospective Payment

An alternative approach to paying the entire fee up front to the provider and having them distribute the fee is to determine or calculate the fee in advance and reconcile the fee against FFS on a retrospective basis—after the case is completed. The key conceptual element of retrospective payment is that the patient centered, severity-adjusted prospective fee or “budget” can be calculated at the start of an episode of care, against which normal fee-for-service (FFS) billings and payments can be compared to during and upon episode completion. Under this implementation method, if the dollars associated with the fee-for-service claims assigned to the provider’s case total less than the pre-established fee or budget, there is a “surplus.” If the actual dollars on a FFS basis at the completion of the case exceeds the pre-established budget, then a “loss” to the risk-bearing entity occurs. Thus, these existing provider organizations can be put at financial risk and be paid on an ECR basis without the need for intense system integration and complex legal agreements between the providers. The point of these retrospectively reconciled budgets is that the plan continues to be the financial integrator of the dollars paid as opposed to delegating that responsibility to a single provider who would act as the financial intermediary for all of the other providers engaged in the provision of care for the episode.

Even with a well-researched and vetted model like Prometheus, plans will want to test these payment methods on a retrospective basis to identify and address any issues associated with a new payment approach — especially for complex patients.

This “actual versus predicted” retrospective payment method solves a number of problems presented by prospective payment. First, this methodology allows a payer to theoretically work with more provider organizations and cover more cases than only being able to work with provider organizations that are already

fully integrated legally, clinically, informationally and financially to operate prospective payment. Second, even with a well-researched and vetted model like Prometheus, plans will want to test these payment methods on a retrospective basis to identify and address any issues associated with a new payment approach—especially for complex patients. Such a testing or pilot period allows payers and providers to become comfortable with the Prometheus methods while limiting each party’s exposure to financial and business risk. For example, “risk corridors” may be put in place to ensure the surplus or loss does not exceed a certain amount for a particular episode. Third, patient behaviors may be difficult to predict and more difficult to control. A patient may select and initiate a contracted episode of care provider, but then choose to opt out to seek another provider as the care pathway proceeds. The so-called “patient leakage” problem presents tricky subrogation problems if the complete bundled fee has been paid in advance. Fourth, most payer claims transaction systems are not set up to detect a triggered episode of care contract, pay a bundled fee, and subsequently turn off FFS processes. These potential system constraints may cause such issues as double-billing or payment whereby the payer remits a bundled check and still ends up being billed through contracted provider billing systems.

We will address approaches to solving these problems in the prospective payment section, but it should be clear that prospective payment is not as straightforward as it might seem and requires a degree of operational sophistication on the part of the provider and payer. The retrospective payment method—while having its own drawbacks—solves these problems and creates a pathway to prospective payment. This methodology may be implemented leveraging existing systems and can create a smooth transition path allowing provider groups to manage the transition from FFS medicine to accountable care over time. Furthermore, even in prospective payment there is an important (almost essential) component of retrospective reconciliation. For example, some episodes might terminate unexpectedly because of a patient’s death or changing coverage. These terminations will need

to be reconciled against other episodes to ensure the prospectively paid provider was not overpaid. Similarly, many risk arrangements are contingent on the provider's performance on quality metrics. In these arrangements a portion of the prospective payment is withheld and made subject to the scorecard. As such, it's unclear to us that any episode of care payment system will effectively be managed without a degree of retrospective reconciliation.

Retrospective Payment for an Existing Provider Organization: How it Works

Overview

As described above, there are at least two scenarios for health plans to contract with existing provider organizations for ECRs:

1. Contract with one “risk-bearing” organization for the full ECR as illustrated in Figure 1.0 (that organization may or may not choose to share the risk with other providers) under the retrospective model; or

2. Serve as a “virtual integrator” and help facilitate the sharing of risk among a number of provider organizations for the ECR (as illustrated in Figure 2.0).

In the first scenario, the health plan contracts with a single existing provider organization such as an ACO or large physician group for ECR case rates to be administered using a retrospective payment methodology. Under this model, providers that are part of or affiliated with the ACO or group and/or other providers that may not be affiliated with the ACO or group may perform medical procedures and services associated with the ECR. Because fee-for-service claims are tracked against the ECR, the ECR can operate “across” multiple provider types and providers that operate under normal FFS claim flows. The actual performance for each ECR is reconciled retrospectively, at the end of the ECR time period. In this implementation, FFS remains the actual cash transaction process and the ECR system converts the fundamental unit of account from FFS codes such as CPT-4, NDC and UB04 codes with negotiated fees to a

FIGURE 1.0

Health Plan Contracts with Orthopedic Group for ECR

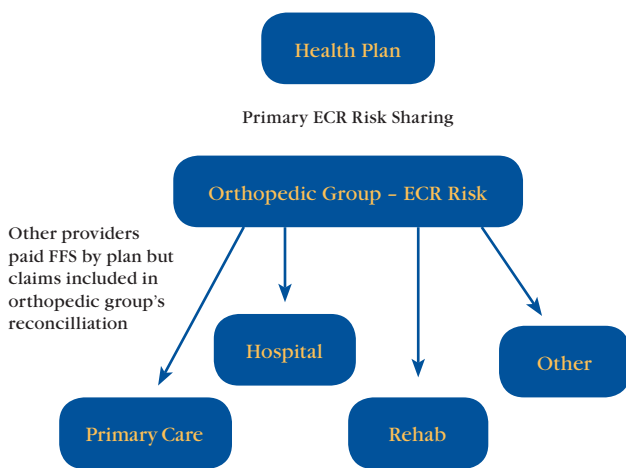
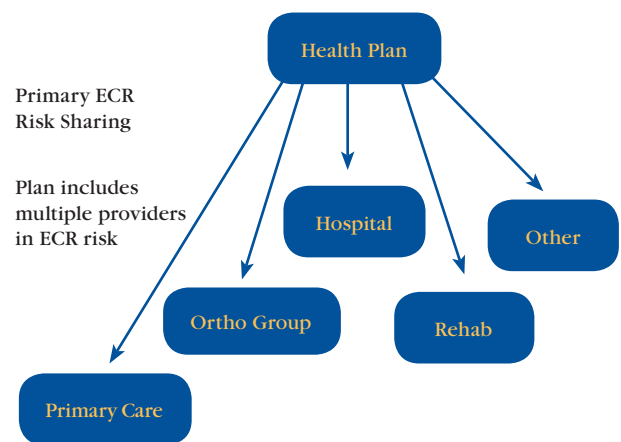


FIGURE 2.0

Health Plan Serves as Virtual Integrator for ECR



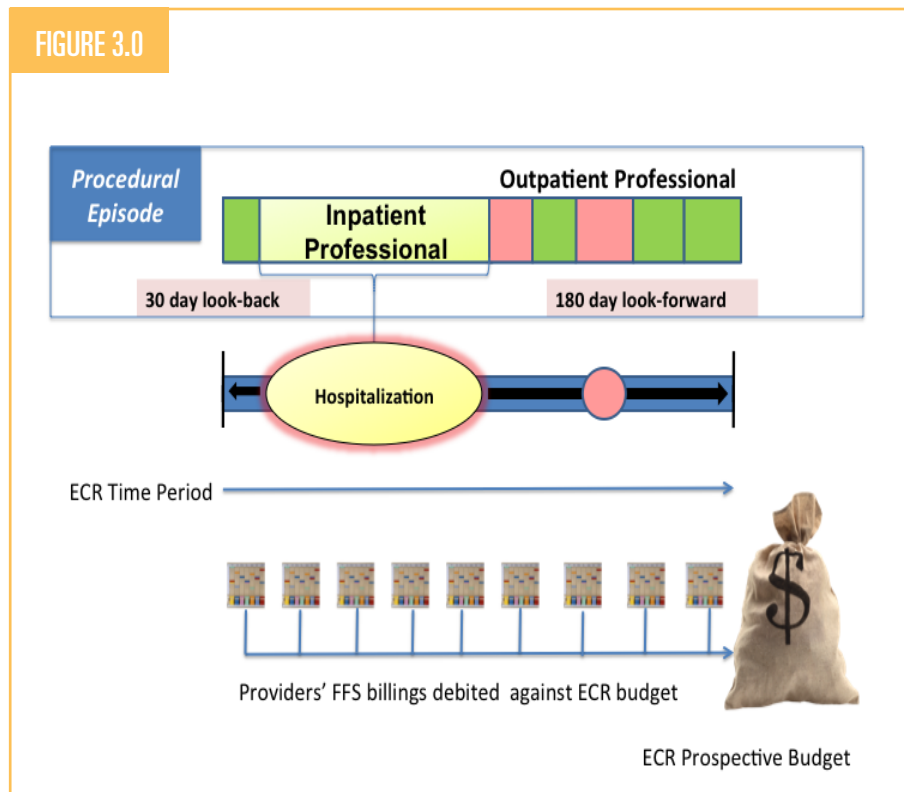
new unit of account: the episode of care or ECR with a negotiated bundled fee. Coupled with accompanying clinical outcomes measures, the patient-centered ECR budget functions as a financial target against which contracted providers can measure progress towards accountable care.

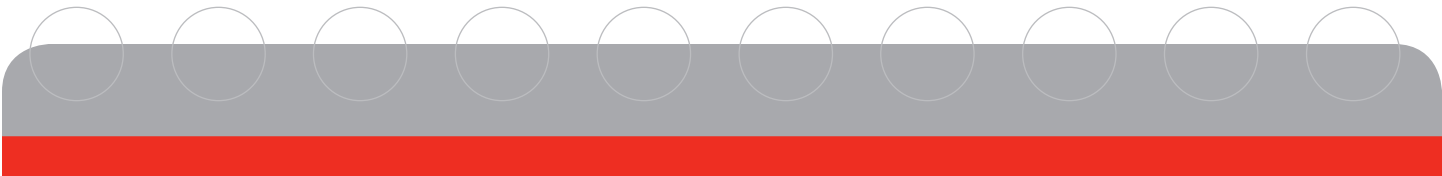
For each ECR that is started or “triggered”, a risk-adjusted, prospective credit for a bundle of patient care for that ECR is established for a specified time period depending on the type of ECR. During the course of care, as claims are received for that patient, for that specific ECR, they are “debited” or counted against the established budget - similar to drawing down a bank account. If at the conclusion of the ECR the FFS claims total more than the established budget a “loss” to the risk-bearing organization or “overdraft” results. If at the end of the ECR the FFS claims are less than the budget then there is a “surplus.” Under this ECR implementation, FFS payments, therefore, function as a cash flow mechanism to support ongoing provider operations and debit amounts. Because it does not require full delivery system integration, nor does it

require health plans to alter their network fee schedules, this implementation method can be scaled out across many current provider settings in the very near term leveraging existing core claims processing systems. The only new technology required is the ECR Engine, which, like a computerized bank accounting system or ATM, automates the accounting process for tracking the FFS claims against the pre-established ECR budget.

Inpatient Procedural ECR—Total Hip Replacement Example

As described by Figure 3.0 below, an inpatient ECR like total hip replacement can be visualized as a three-part time period consisting of 1) —A 30-day look back period to include pre-admission services; 2) - the hospital length-of-stay or Index Stay; and, 3) a 180-day look forward period, the conclusion of which closes out the ECR or episode of care. The bundle includes all the services and procedures performed during the full 3-part time window related to the ECR—professional services, facility fees, costs for the implant, medicines, rehabilitation services, etc.—required to successfully replace a hip joint.





As an example, consider that a health plan has negotiated an inpatient ECR bundled fee contract for total hip replacement with an orthopedic specialty group. The group has agreed to accept financial risk for the full ECR including the hospital costs to which that group admits patients and for the cost of the rehabilitation therapists and any other required services. The plan has conducted an ECR analysis that revealed the baseline Potentially Avoidable Complications or “PAC” trend for this orthopedic group to be 9%, representing \$528,750 of the total cost of \$5,875,000 for 235 patients in the last year measured. The plan and the group have agreed to target a PAC rate reduction of 50%, or to reduce the overall PAC rate to 4.5%, while keeping the balance of the Typical costs in line with the baseline year.

Because this is a new way of contracting for the health plan and the orthopedic group, they decide that if the group does not meet the 4.5% target for the first year using the new payment system, there will be no downside—only upside if the group meets the target. The 50% PAC rate reduction is entered into the ECR Engine so when each new patient triggers a total hip replacement ECR attributed to the orthopedic group, the Engine calculates a prospective budget that imposes a 50% PAC dollar margin into the Typical, risk-adjusted budget. Although the group will not be at-risk financially for the first year if the actual claims exceed the budget, they will however stand to benefit if their total actual FFS claims are less than the overall budget (PAC allowance + severity-adjusted Typical).

A patient, John Doe, was admitted on February 17th for a total hip replacement and the ECR is “triggered” and assigned to the contracted orthopedic group. The Engine calculated a risk-adjusted budget for Mr. Doe’s ECR of \$27,565 (which included the 50% PAC margin) and counted out the timing rules. As Mr. Doe progressed through the care pathway, providers billed the plan for their respective portion of the case. His case closed on August 17th, and the cumulative FFS billings added up to \$22,652—the contracted group therefore came in under the pre-established target by \$4,913.

Another patient, Jane Smith was admitted on March 2nd. Her prospective budget was \$29,476, but three weeks after initial discharge, she was readmitted to the hospital (represented by the red dot in Figure 3.0 above following the index stay). When her episode finally closed, the total FFS bill was \$48,782, exceeding the pre-established budget amount by \$19,306.

Overall, during the reconciliation period following the end of the first operational year, the contracted orthopedic group treated and was “at-risk” for 241 patients under the new payment system whose aggregated prospective budget amounted to \$5,543,000. There were 6 more patients than in the baseline period, and yet the total cost of care for those patients was lower than baseline. Note that the provider is not at risk for the number of episodes, but rather the costs of each episode.

The reconciliation process accounts for *all* patients that qualified for the total hip ECR; a handful of patient cases went over budget, most were close or somewhat under. Although the group did not meet their overall PAC reduction rate of 50%, they did reduce it by 39%, and thus saved the health plan a little over \$300,000 from the base year, or roughly a 5.5% cost reduction for this cohort of patients. Most of the savings came from the surgeons’ more efficient treatment decisions and agreeing to use a select number of more cost effective implants.

The group could have been paid prospectively, however it might have taken several years for the orthopedic group and other unaffiliated physicians and the hospital to negotiate terms of a formal integration. Under this scenario, the other physicians, hospital and therapists that treated the patient’s ECR continued to be paid their normal fee-for-service payments although their “performance” was included in the contracted orthopedic group’s ECR reconciliation. Having gone through one year of experience under Prometheus payment with a retrospective reconciliation, the orthopedic group gained confidence that the ECR pricing method was sound, they were able to manage their PAC rates better and benefit financially by working collaboratively with the hospital and the rehabilitation providers throughout the course of the ECRs.

In addition, the group appreciated the continuous feedback from the plan in the form of granular financial and clinical ECR reports from the payment Engine on total costs of procedures and clinical PAC drivers. It provided them a dashboard for the next operational year in their work with the hospital to manage total quality improvement. And with this they were willing to accept downside risk in the form of FFS withholds for the second operational year. Knowing that 20% of the FFS billings would form a pool of money at the end of the second operational year that could become available if they met or exceeded their overall budgets and PAC rates, the practice felt confident they could make substantially more money than with their standard FFS contracts. In addition, the negotiated stop-loss gave them further assurance that their total risk exposure was limited.¹

The primary insight for retrospective payment is that the health plan, instead of a single provider corporation, serves as the financial integrator for the ECR. In this case, the plan is serving as the financial integrator for a single provider entity. The plan may also choose to contract for and thereby integrate care across several providers for a given ECR. For example, in the scenario described above, the plan may have developed an ECR risk sharing arrangement with the specialty group as well as the hospital and the rehabilitations providers. As the Engine accumulates PAC savings and tracks FFS withholds, yearly gains or surpluses in total FFS spend versus ECR budget and PAC rate reductions would then be distributed to the orthopedic practice and other participating providers (i.e., physical therapists) according to a pre-set attribution and distribution formula. With inpatient acute episodes like total hip replacement, attribution is straightforward. The group practice and the hospital may share an equal portion of the savings less a sub-distribution to designated rehabilitation referrals (which can be a ratio, say, a 70 / 30 split between the practice/hospital and participating physical therapists). As a matter of operational transactions, this is no different than standard P4P allocations that are paid out after certain criteria are met, except the standard unit of account is the Prometheus total hip ECR.

¹ Risk corridors are covered in a subsequent section.

As a glide path towards fully accountable care, it is easier for a health plan to re-engineer its internal operational processes for retrospective bundled payment than it is for providers to fundamentally alter their corporate relationships for prospective bundled payment. The capital, cultural, IT and legal requirements alone for genuine provider integration mean that it will likely take a good deal of time to bring about the necessary transformations. Further, it is difficult to see why providers embark on a massive integration effort unless there is a critical mass of private and public payers willing to embrace bundled payment reform. Retrospective bundled payment represents an initial transformative step to full prospective payment reform while giving provider organizations time and experience to manage the migration away from FFS business practices.

Chronic Disease ECR

Conceiving episode of care or ECR payment in an inpatient setting for a single procedure is fairly straightforward, and because of this, there is a widespread perception that bundled payments or ECRs work only for inpatient procedural episodes. But Prometheus was designed to accommodate chronic diseases as well. In fact, Prometheus chronic ECRs may be even more appropriate for bundled payment in that PAC dollars associated with expensive, progressive diseases such as diabetes and congestive heart failure are significant and therefore offer a substantial opportunity for savings (and therefore margin or surplus for risk-bearing provider organizations).

As with acute inpatient and outpatient episodes, a risk-adjusted prospective budget can be calculated for each patient with a chronic disease against which FFS billings can be accounted. The difference lies primarily in the timing rules. Whereas an acute ECR can “trigger” on any day of the year, under the Prometheus payment methodology, chronic ECRs can only trigger for management on the first day of the plan fiscal year and conclude on the last day of the plan fiscal year (or the benefit year if the plan year and benefit year

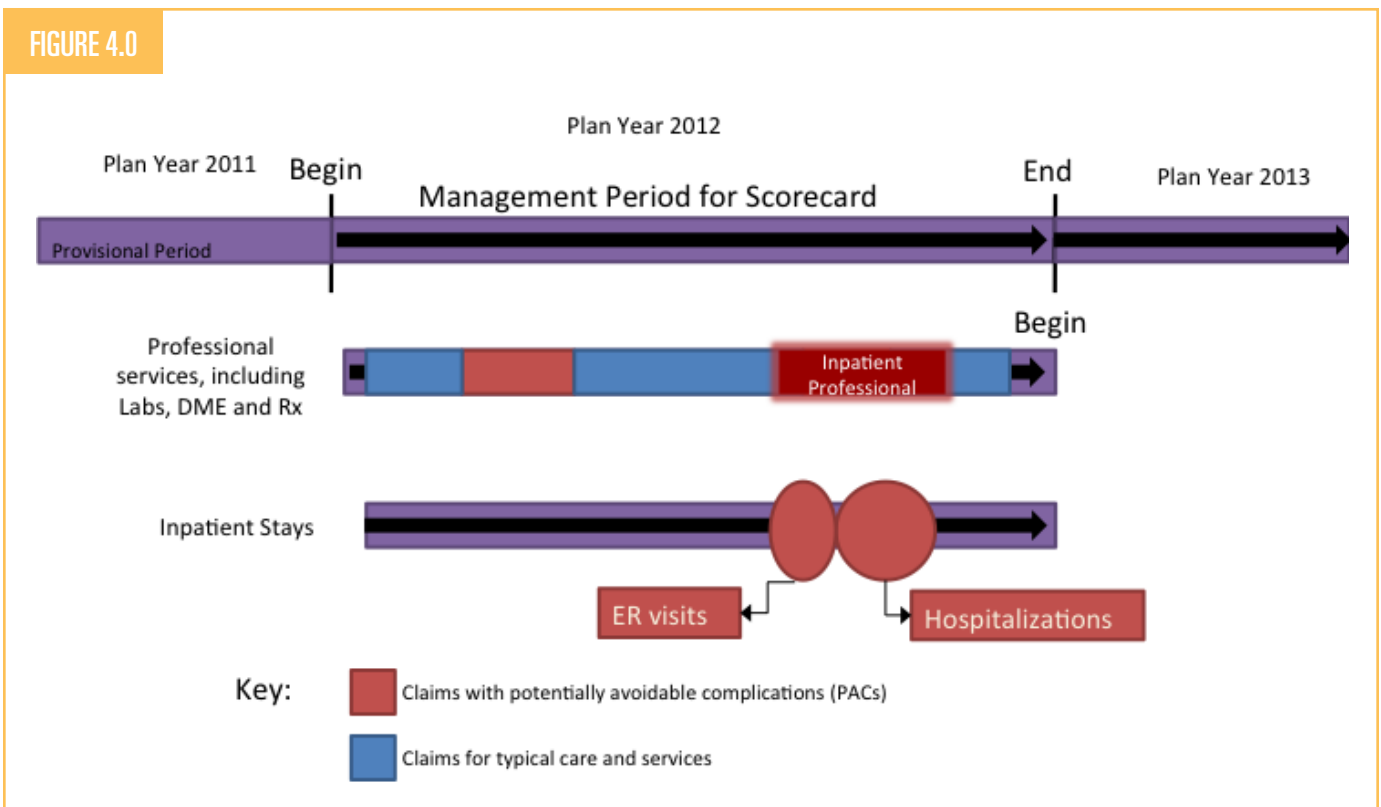
are different). Since chronic diseases extend from diagnosis to the end of life, for disease management and financial accounting processes, these conditions are segmented into twelve month cycles to coincide with provider contracts and premium payment.

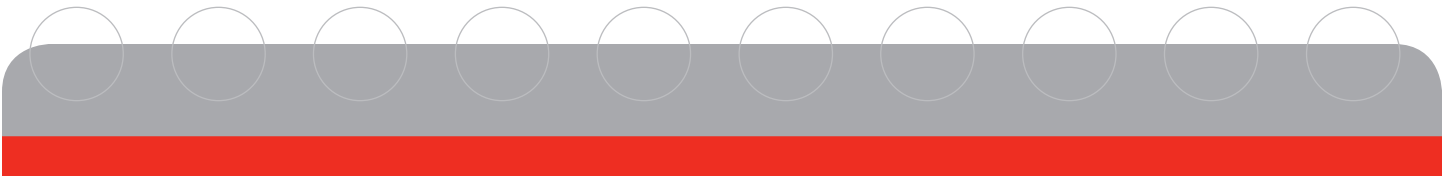
Under Prometheus payment rules, chronic disease ECRs are triggered at the start of the plan year from previous year “provisional” ECRs. Any chronic patient can trigger a Provisional ECR on any day of the plan year. Provisional ECRs act as “place holders” allowing time and information on the patient to accumulate as the plan year progresses, but they do not act as monetary / clinical units of account. The Provisional ECR becomes a chronic Management ECR automatically on the first day of the new plan year (so long as the patient retains benefit eligibility). Management ECRs function as active units of account for 365 days. Combined with clinical outcomes scores derived from electronic medical record “EMR” data, chronic Management ECRs ultimately determine if and to what amount contracted providers can earn as extra payment

over and above FFS billing due to PAC rate reductions. As with acute ECRs such as the prior inpatient procedural example, these amounts are calculated and distributed retrospectively at the conclusion of each plan year (completion of the chronic ECR).

As Figure 4.0 illustrates, Management ECRs are triggered for patients when the new plan year (e.g. 2012) initiates. During the subsequent 12-month period of the chronic management ECR, all relevant claims to the chronic ECR accumulate in the Engine as either Typical or PAC FFS claims (assigned based on the rules for each ECR). When the Management ECR triggers, the Engine calculates a risk-adjusted prospective budget determined by the number of risk factors each patient has as they were detected and accumulated by the Provisional ECR year (e.g. 2011). All providers interacting with the patient during the course of the Management time period (as evidenced by billing a relevant FFS claim related to the chronic ECR with a date of service falling into the management year) are counted in the Engine. For example, if a diabetic

FIGURE 4.0





patient receives care in a Medical Home setting, or any contracted primary care setting, and ends up in the ER or admitted into a hospital for any reason related to diabetes or a comorbid condition, the Engine will accumulate those FFS claims dollars, professional or facility, as PAC dollars—and they will be debited against the prospective budget (severity-adjusted Typical + PAC Allowance) for that management ECR.

Similar to an acute ECR, all chronic care patients and their relevant FFS claims dollars will be aggregated during the reconciliation process when the plan year ends to determine the total savings (“surplus”) or losses across all qualifying patients identified with contracted providers. But unlike acute ECRs, if the patient elects to remain with the plan, a new chronic ECR will automatically trigger on the first day of the new plan year (e.g. 2013), and the process starts all over again with a fresh prospective budget. If the patient loses coverage in the new plan year, the chronic ECR will terminate and not count in the final reconciliation.

The willingness and capability of a health plan to act as a financial integrator to administer retrospective ECR payment models is even more important for the implementation of chronic care ECRs. Acute care generally has fewer moving parts and better patient control. Until comprehensive accountable care organizations (ACOs) or Medical Homes attached to ACOs become more prevalent, retrospective payment may be the only scalable and readily available strategy to incentivize accountable, coordinated care for chronic patients. The patient attribution-to-provider and PAC dollar distributions are more complex than acute episodes such as the inpatient procedural hip replacement example, but as long as plans can successfully negotiate these formulas with willing providers, retrospective payment is a more forgiving strategy. This is why the Prometheus guidelines strongly recommend that the first operational year or two of implementation be made with no downside risk to providers but include an upside opportunity should providers have a favorable effect on PAC rates. In contrast to Procedural ECRs, where cost compression can occur in both typical and PAC costs, we have seen evidence of cost compression primarily

in PAC costs for chronic care ECRs. That’s because, for the most part, we have observed underuse in typical costs for chronic ECRs.

In retrospective reconciliation arrangements where a plan is facilitating a shared risk arrangement among multiple providers (versus one organization accepting all the risk), one option for dividing the dollars associated with upside savings is implementing the same formula used in the CMS physician value-based payment effort, where proportional intensity of management is calculated by looking at the number of office visits per treating physician. So, for example, if the patient’s PCP has seen the patient 10 times, the cardiologist 3 times, and the pulmonologist twice, the PCP would receive 10/15th of the upside, the cardiologist 3/15th and the pulmonologist 2/15th. This calculation can be done for each patient and then summed up for each provider in a community.

Except for metropolitan centers that may enjoy sophisticated multi-specialty clinics and integrated delivery systems, much of the nation still operates under highly fragmented delivery arrangements. Therefore, transitional pathways to ECR payment are less disruptive and far more conducive to success if the first phases of implementation take the form of ECR facilitated transparency with the possibility of upside gains. This gives time for interested providers to understand the numbers and gain some early successes. And like the total hip example described above, mechanisms such as financial withholds can be implemented as providers become comfortable with the Prometheus methodology and the plan’s ability to accurately function as a financial integrator.

Retrospective Payment: ACOs and Medical Homes

In a number of Prometheus implementations, some interesting hybrid approaches are emerging that may be formulated into generalizable strategies. As a rule, ACOs are seen as comprehensive organizations that place primary care, specialty care, ancillary care, and facility care under one corporate umbrella. This structure enables the organization to provide “accountable care”

for populations of patients often in the thousands or tens of thousands. This structure may be used for financial contracting with a health plan whereby the ACO would receive a “global” or capitated per patient payment amount for their assigned population of patients. Under these “global” risk contracts, the ACO or at-risk organization is responsible for all the medical costs of their assigned patients (though they may in turn purchase some type of “stop-loss” or re-insurance).

On a smaller scale, Medical Homes are proposed to function on a similar population-based model focusing on coordinating care for a patient except the comprehensiveness of care directly provided by the Medical Home is often limited to the primary care services.

These population based care models are developing quickly and in many forms. As a result, there are and will be many forms of “risk sharing” for these entities—often in the form of a per member per month or “PMPM” payment. The amount of the PMPM amount will likely vary as described above by the amount of care and level of integration that can be achieved by the risk-bearing entity. While the ACO may be at risk for all of a patient’s medical costs, the Medical Home may be at risk for only the primary care services. Often the amount paid for primary care services to a Medical Home will be increased because the Medical Home, in addition to providing basic primary care, is acting as a “care coordination” organization and therefore providing more intensive services.

A scenario where a plan contracts with an ACO for all medical costs under a PMPM arrangement can be appealing to both the plan and provider organization because it is easy to imagine a fully integrated delivery system having the potential to achieve some type of savings on the total medical spend when they are responsible for all costs. However, these types of global risk contracts require the risk-bearing entity to not only manage “performance” risk associated with specific clinical episodes (such as those defined using the ECR methodology) but also “insurance” or probability risk where the number of clinical episodes or conditions must be accounted for in the contract. If the number

of episodes or conditions exceed what is projected for a given population, the ACO may be impacted in a negative manner financially independent of their “performance” under the contract.

As a result, we believe there are opportunities to implement hybrid models of reimbursement combining the most promising aspects of population-based, ECR and FFS methodologies. For example, adjusting the PMPM amount based on PAC rate reductions. The following section describes some of these hybrid reimbursement approaches.

Global PMPM Mixed with Prometheus ECRs

In one Prometheus implementation site a large health system with a captive health plan is using a PMPM budget target embedded with ECRs. Typically, a health plan reimburses for care in at least four major areas including: primary care, specialty care, institutional care (inpatient / outpatient, etc.) and pharmaceutical costs (Figure 5.0 displays three of these main areas).

In a standard ACO arrangement, a payer contracts with a mature health system to cover all these services under a global PMPM for which it is at risk. Although this may be straightforward from a financial management perspective, understanding and, more importantly,



managing the intricate and highly complex dynamics occurring with thousands of patients suffering myriad diseases under a global capitation rate, is very difficult. By placing ECRs within the context of a global PMPM represents a new way for understanding many of those complexities and can be used to further refine the global PMPM. In the case of the previously mentioned site, all 21 Prometheus ECRs will be “carved out” of the global PMPM and operated as retrospectively adjudicated bundles as illustrated below in Figure 6.0.

In this example, what makes this approach both simple and elegant is that no real money is being exchanged through the partial PMPM and the ECR package. They are simply a means of analyzing performance dynamics and payment will continue according to existing contracts. The physicians will be rewarded for meeting specified triple aim targets, including access and patient satisfaction as well as Bridges to Excellence quality targets for certain chronic illnesses like diabetes. The measurements will be based on their entire, all payer, patient base.

Since all 21 of the Prometheus ECRs comprise about 35% of the site’s total spend, the partial PMPM therefore is about 65%. The 65% partial PMPM is virtual and calculated using ordinary actuarial methods. The plan

will employ the ECR Engine to trigger prospective budgets for each patient with an assigned ECR. At the end of the operational year, all ECR budgets (severity-adjusted Typical plus PAC allowance) will be summed up creating an aggregated budget against which actual dollars flowing through existing contracts will be compared. While this mechanism will not used to calculate physician incentives, it will be tied to top executive compensation packages if PAC rates are reduced by 10% off the baseline.

One of the reasons the site has chosen this strategy is that they are simultaneously investing in a major system-wide EMR overhaul that will take considerable corporate resources to execute. By deploying a retrospective virtual ECR physician feedback model they will not have to further invest in major contract negotiations. At the same time, however, by embedding PAC reductions into executive compensation fully commits the organization to accountable care and understanding potential defect rates as a strategic and tactical management tool. In this way, it becomes possible to pursue lean management techniques in much the same manner as manufacturing interests adopted quality improvement some twenty years ago.

Both private sector and CMS Medicare plans are contemplating virtual global PMPM arrangements where the PMPM is a target, and if the ACO manages itself under the target, a gain-sharing mechanism is triggered. ECRs—whether all 21 are employed or some subset of the total ECR inventory is used—make virtual PMPMs a more exacting science.

Medical Homes and the Medical Neighborhood

Prometheus was designed to support Medical Home payment reform as well, and more importantly for chronically ill patients, the entire “Medical Neighborhood” caring for chronically ill patients. One of the weaknesses of the aforementioned model of PMPM reimbursement to a Medical Home is that the financial risk boundaries do not extend beyond primary care. ECRs were specifically constructed to encompass the entire longitudinal sequence of clinical care that may be provided to a diabetic patient, for instance over a specified time period. Although Medical

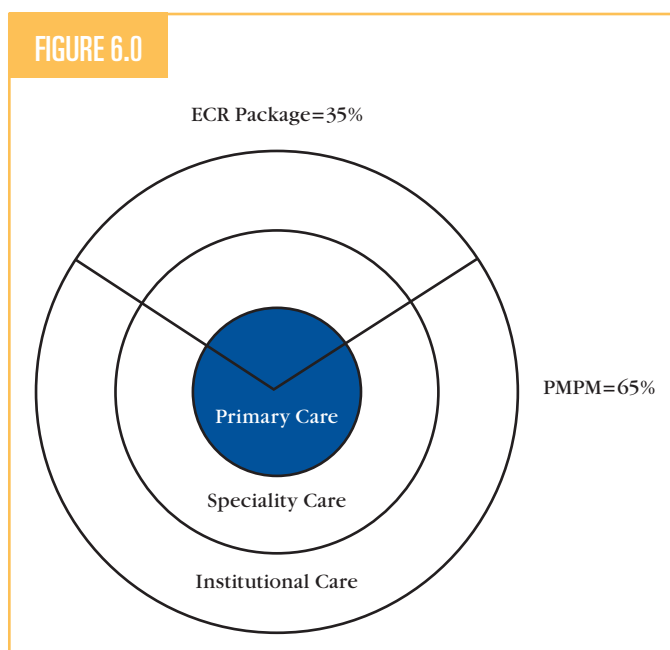
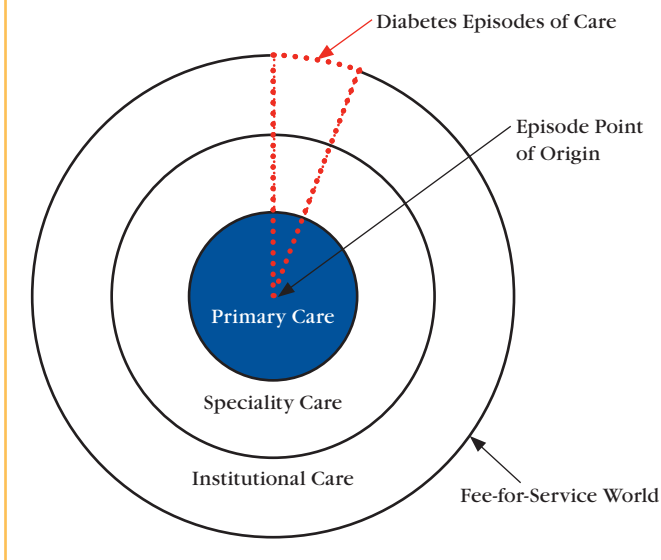


FIGURE 7.0

Total Dollar Continuity Over the Longitudinal Path of Care



Homes are ideally held to be model interventions that keep chronic patients mostly within the boundaries of primary care (i.e., healthier), even in a well managed Medical Home, many patients will end up in specialty care and hospitals. Furthermore, there may be instances where the patient would benefit from a specialist being the care coordinator.

One way to improve the current payment strategy is to overlap ECR PAC rate improvements with the Medical Home PMPM. In the Figure 7.0 below, a diabetes ECR is combined with a Medical Home arrangement to capture the costs of patients requiring specialty and hospital care. By including the costs of the providers downstream from primary care, an additional incentive to work as a coordinated care team is introduced. Although the Medical Home may be prospectively paid under the PMPM terms, a retrospective PAC rate target can be used to add a pay-for-performance (“P4P”) component for Medical Home performance. As described previously, ECRs as designed allow for the transfer of “performance” versus probability risk. Therefore, the Medical Home will only be held to

“population” risk for primary care services only but can participate financially and benefit through ECRs to the extent their care coordination efforts reduce costs in specific ECRs.

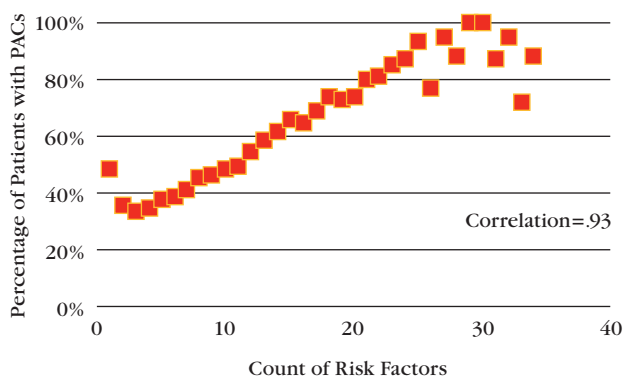
This is represented in Figure 7.0 above by extending the potential care pathway all the way from the primary care point of origin to hospital and ER admissions as the unit of account. For a more detailed discussion of how Prometheus works in a Medical Home setting, see “Sustaining the Medical Home: How Prometheus Payment Can Revitalize Primary Care”.² In thinking about retrospective contracting in the context of Medical Homes and neighborhoods, there are some interesting features of PAC analysis that make the figure above jump out in detail.

Our analysis of plan databases across the country reveals that while there is little correlation between whether and how many risk factors any one given patient has and if they will experience a PAC (even though patients with more risk factors have a greater likelihood of experiencing at least one PAC claim per year), there is a very strong correlation between the number of risk factors and the costs of care when a patient does experience a PAC. The graph below plots a cohort of patients according to their risk factor counts against the percentage of patients in each cohort that had at least one PAC. From this analysis examining the data on GERD, there is a high correlation, .93, between risk factor counts and the number of patients who have at least one PAC. PACs are also occurring in up to half of all patients, even those with very few risk factors. At least 30-40 percent of patients with GERD with 0-5 risk factors still have one PAC which, overall, makes predicting the occurrence of PACs in patients quite challenging.

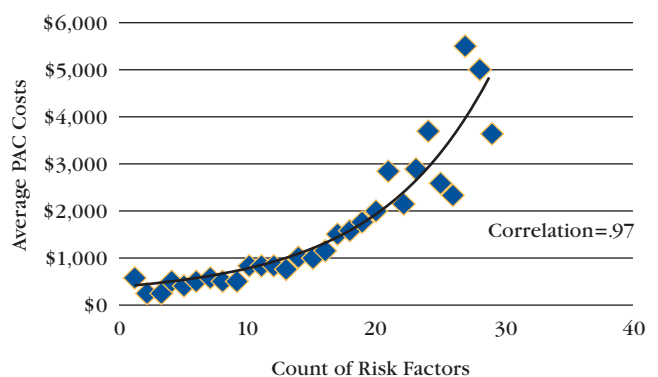
But when we isolate patients with 20 or more risk factors, 70-100 percent of these patients will have at least one PAC. Although the occurrence of a PAC in a population of patients with GERD might seem to be random, it is clear that grouped into cohorts by number of risk factors, the pattern is different. We

2 <http://hci3.org/Content/ContentDisplaya925.html?ContentID=157>

GERD: Percentage of Patients with at Least 1 PAC



Diabetes: Average PAC Cost per Member



can hypothesize that patients with many risk factors see many physicians and have a far higher likelihood of ending up in the ED or being hospitalized because of a lack of care coordination. In other words, even though the Medical Home intervention is in place, the larger Medical Neighborhood is not organically communicating throughout the longitudinal sequence of care.

In examining the Medical Home in question with regard to downstream specialists and facility care, there emerges a strong relationship between the average cost of a PAC and the patient cohorts. For diabetes the correlation is 0.97. This implies that when PACs are incurred, they are likely to be more expensive, on average, among patients with a relatively higher number risk factors. Targeting these high risk factor patients for more intensive forms of interventions like disease management programs and transitional care coordination may help not only to avoid future PACs, but when they do occur, to better manage patients throughout the entire potential sequence of care.

Since these types of analyses (and others) can be applied not just to all data in any one health plan, but to specific nodes of provider groups, it brings up an interesting possibility when considering ECR contracting and accountable care. Conventional wisdom with respect

to ACO formation is to compress all care into one comprehensive organization under a global capitation arrangement whereby the organization is at-risk for all medical costs associated with a population of patients. With retrospective ECR payment, accountable care can be translated from a structural approach to a process approach where multiple organizations can compete for discrete episodes of care. One issue with globally capitating a large health system/ACO is that it an implied assumption is one organization can do all things equally well under the capitation arrangement. To a lesser extent, this is also true of capitating Medical Homes. However, in complex economies like health care delivery, this may not be true—one organization may not be able to perform everything with splendid optimality. The ECR payment model enables organizations with specific clinical expertise to effectively compete financially and clinically for the complete ECR.

By viewing ECR contracting not so much as a structural solution but as a process solution, it becomes possible to contract with multiple organizations for the same types of ECRs. For instance, a plan covering hundreds of thousands of patients in a large regional MSA could contract packages of chronic ECRs with dozens of primary care practices functioning as Medical Home/ Neighborhood alliances. With that in mind, does it

necessarily follow that patients who are otherwise healthy and require a hip replacement should be forced to receive care in these same arrangements? It makes more sense to allow provider groups to specialize in these types of care and compete for patients on the basis of cost and quality. This would allow for example, orthopedic physicians to organize accountable care around orthopedic episodes, heart physicians to specialize in CABG procedures, and OBGYNs to specialize in pregnancy cases—and not have to be tied into one corporate umbrella. More importantly, it allows a degree of patient autonomy in selecting where they receive their care in an open marketplace. For example, a patient diagnosed with cancer that is assigned to a globally capitated ACO may want the choice to receive treatment outside the ACO at a specialized cancer center. It can be argued that the lack of choice in capitated IDs and HMOs during the 1990s was a contributing factor to the public relations issues associated with HMOs. Combined with the inability to effectively manage the financial risk associated with these arrangements meant many of the global capitation arrangements set-up in the 1990s proved unsustainable and led many markets to revert back to FFS contracting which preserved patient choice.

Accountable care is the goal with both types of contracting, and it is our belief that if groups integrating around ECRs are allowed to compete on the basis of price and quality then transparency and significant delivery system innovation would result as byproducts of the competition. As the federal government invests in building public domain episode of care standards (scheduled to be phased in by January 2012), the total inventory of episode definitions will greatly expand. Currently, Prometheus has developed 21 ECRs that generally cover approximately 35% of the total premium dollar in commercial plans. An expanded inventory of episodes developed through PPACA-funding could reach up to 80% of the total spend. The rest is easily manageable under FFS or other risk arrangements. Thus risk delegation and patient choice—the *bete noire* of fully capitated systems—can be made compatible. And on the subject of risk, we proceed to ECR risk corridors.

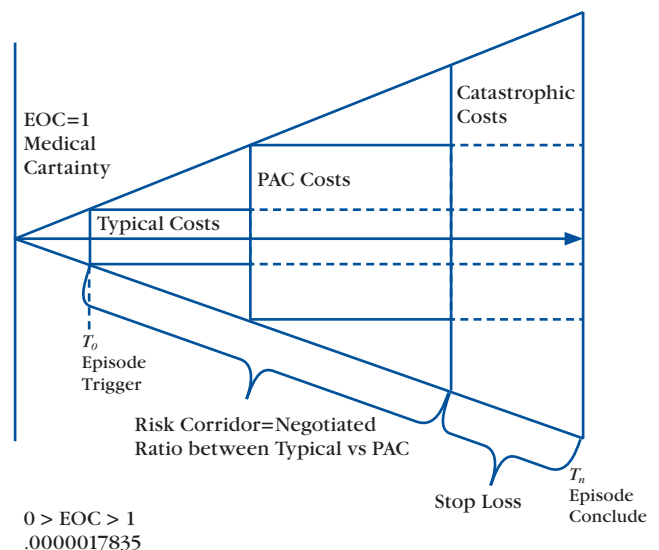
Risk Corridors and ECR Contracting

The various contracting strategies we are elaborating here not only allow for flexibility in the mix of FFS, PMPMs and PAC incentives, but they also permit flexibility in negotiating the amount of risk transferred to participating providers. To be clear, all these approaches involve fixing technical risk through the ECR or episode of care mechanism as opposed to allocating insurance risk (which we believe rightly belongs to the health plan or payer). The difference lies in applying budgets based on actuarial constructs like full PMPMs (which introduces probability or event risk), and fixing budgets around a discrete clinical unit or sequence of care once the disease or illness is known and care planning is required (which excludes event risk but maintains technical, “performance” or “production” risk).

In the Figure 8.0 above, we see that an insured beneficiary can have a probability of being diagnosed with any given condition lying anywhere between 0 and 1. Since future medical demand is uncertain for this person, he or she obtains insurance to cover

FIGURE 8.0

Insurance Market: Probability Risk where medical demand is uncertain



the possibility of requiring medical care. But once a beneficiary becomes a patient and a care sequence is initiated, a new realm of uncertainty exists, but one that is much more tightly circumscribed to medical knowledge and treatment techniques. It is believed that Providers have much more control over variations that occur when an episode of care is triggered than whether one will occur at all. Thus, ECRs have been modeled to delegate risk along this pathway because much of the observed variation is under the control of providers according to their technical skills and knowledge—and most important to the concept of accountable care, their ability to reengineer and transform fragmented, poorly coordinated in response to patient needs.

The sharing of technical risk, therefore, is a way of delegating the appropriate kind of risk to providers organizations that will incentivize and reward improved care responses, but that does not immerse them in so much risk that it is impossible to discern whether losses occur due to pure, unpredictable randomness beyond their control or losses due to poor clinical technique within their control. This is an extremely important concept to understand in ECR contracting because if payment reform is to succeed, it must perform double duty as both an incentive model and a feedback loop. If there is so much noise in the incentivized feedback loop that it is impossible to understand the effects of specific interventions, it will not be possible to learn and innovate. The predictive model incorporated into Prometheus ECRs achieves substantial gains in explaining variation within an episode of care, and this forms the basis for negotiating an ECR contract.

As Figure 8.0 illustrates, there are three financial “layers” that form the basis of ECR risk delegation. The first is the Typical budget. The Typical budget is based on a specific disease state, care pathways and a regression model that predicts the future costs of caring for a patient with the index condition and comorbidities. The second is the PAC budget. Baseline PAC costs are established with PAC analysis and monetize the costs of medical events that could *potentially* have been avoided if the appropriate

care pathways had been followed. The third is the Stop-loss. The Stop-loss recognizes that all observed variations in patient care are Pareto distributed; that is, no matter how good the predictive model is, there will always be costly outliers in some few patients whose costs are so high, and potentially not attributable to provider technique, that when they occur they should be absorbed back into probability risk and the insuring plan (or some other mechanism designed to protect contracted providers from experiencing catastrophic losses).

The PAC Risk Corridor

When PAC analysis is performed, the ECR model takes into account a plan’s allowed amounts and observed utilization patterns to render a unique view of Typical costs normalized for that plan. Thus, for any given patient, a prospective dollar amount can be established for Typical costs per patient for a given ECR that are risk-adjusted according to the risk factors present with the patient. The Typical budget is not negotiable. What is negotiable is the magnitude of observed PAC dollars that can be factored into the full prospective budget, or the PAC Allowance. Think of this as the tunable parameter for negotiating the PAC risk corridor.

In the set Prometheus formula for allocating PAC dollars into the prospective budget there are two base rates for factoring PAC dollars: the 25% flat rate and the 75% proportional rate. Both give results that are dependent on the tunable parameter which is a figure that falls between 0 and 100 percent of the total observed PAC dollars. The 25% flat rate equation is:

X% of PAC Total times (.25 divided by total observed ECR cases)

Where X% is the tunable parameter falling between 0 and 100 percent (the PAC Allowance) and results in a specific dollar amount added to the severity adjusted Typical budget.

The 75% proportional rate equation is:

X% of PAC Total times (.75) divided by Total Number of Observed ECR Cases times (Average Typical Costs)

Again, X% is the tunable parameter falling between 0 and 100 percent (the PAC Allowance) and results in a percentage that is multiplied against the Typical budget to give a dollar amount that is added to the severity adjusted Typical budget.

In both equations, the tunable parameter must be the same: some percentage multiplied against the total observed PAC dollars for each ECR as calculated from the PAC analysis. The “some percentage”—the PAC Allowance—is negotiable and will determine the relative magnitude of the risk corridor for each risk-adjusted prospective budget.

To make these abstractions concrete, imagine a plan has conducted PAC analysis and is now ready to negotiate a CHF ECR with a cardiology practice or a Medical Home. Prometheus recommends making the PAC allowance 50%. So based on the PAC analysis and a 50% PAC Allowance, we can calculate the prospective budgets for 3 patients, each progressively having more risk factors present and consequently requiring more resources for their year’s worth of care.

Taking all the formulas discussed above and considering a 50% PAC Allowance (the PAC Risk corridor), the full prospective budgets would be:

- Patient 1 = \$4,112
- Patient 2 = \$15,549
- Patient 3 = \$34,629

But now consider that the practice or Medical Home managers are uncomfortable with that risk corridor and feel the PAC Allowance should be 70%, not 50%. Under that wider risk corridor, for the same patients, the full prospective budgets would be:

- Patient 1 = \$5,348
- Patient 2 = \$18,714
- Patient 3 = \$41,013

These are actual numbers derived from the Prometheus developmental database and can be performed for every ECR under consideration in each Payer / Provider / Patient triad where PAC analysis has been performed. The point is that the PAC Risk corridor is negotiable and can be made to fit the needs of contracting payers and

providers in light of common objectives. For instance, let’s say that one provider group has a large market share and high contracted fee schedules relative to other provider groups (which means its Typical costs are high). Because of its bargaining clout, it feels no need to negotiate a tight PAC Allowance, and instead bargains for no PAC rate reduction, or a 100% PAC Allowance. In return for a 100% PAC Allowance, the provider guarantees that there will be no fee schedule increases for the next 5 years. For some plans, this may seem like an acceptable deal because at least for these ECRs, there will be no trend increases for the next 5 years. Given the national trend lines over the past 5 years, that could be a major accomplishment. However, that same provider group would have to be willing to take 100% of the downside above the budgets (e.g. would not be paid for any claims once the prospective budgets have been “depleted”) up to the negotiated stop-loss.

Stop-loss Corridor

The second tunable parameter for negotiation is the Stop-loss. There are a number of ways to do this. In the Prometheus Business Rules, Stop-losses are defined as:

- For a Chronic ECR, a Stop-loss is defined as being equal to 2 times the standard deviation of the PAC allowed amount;
- For an acute ECR, a Stop-loss is defined as being equal to 3 times the standard deviation of the PAC allowed amount.

But in reality, a Stop-loss can be defined in just about any manner that payers and providers are comfortable with. Stop-losses could be defined in hard set numbers after looking into the PAC analysis data, or simply some multiple of the average prospective budget within a patient cohort (after setting the PAC Allowance). One of the advantages of retrospective payment is that once a Stop-loss is hit, the Engine terminates the ECR and payment reverts to regular FFS, fully protecting at risk providers.

Think of this as the equivalent of the “donut hole” in Medicare Part D. The provider would get reimbursed for costs up to the prospective budget in the ECR, but

then would be at risk for a certain amount (the donut hole) up to the point when full stop-loss is triggered.

This concept of a risk corridor can be negotiated at various points within the negotiated PAC allowance. For example, another group than the one discussed above might accept a PAC Allowance of 50% but would not accept any downside beyond that amount. As such, their “donut hole” would kick in between the Prospective ECR Budget calculated with a 50% PAC Allowance, and 100% of baseline spend. Using the monetary example above, if the practice had total ECR CHF budgets of \$1,500,000 (with a 50% PAC Allowance) and the actual baseline spend for those same patients was \$1,750,000, then the donut hole would kick in between \$1.5MM and \$1.75MM, creating a risk corridor of \$250K.

Their stop loss wouldn't be 2 standard deviations of the PAC Allowed Amount, but rather the actual baseline year spend. However, for the first group discussed above, the stop loss might very well be fixed at 2 times the standard deviation of the PAC Allowed Amount, and their donut hole would likely be several million dollars.

These two parameters—the PAC Risk Corridor and the Stop-loss Corridor—are the most powerful tools in negotiating ECR contracts and in the end, determine the amount of downside risk imputed to the provider or held by the plan, in the contract.

Here are some final thoughts to be considered when approaching ECR contracting. At individual provider levels, PAC analysis can reveal ideal providers and those who may benefit from clinical interventions to reduce PACs. For those providers for whom there is an opportunity to reduce PACs, further analyses are designed to reveal which PAC types are the most prevalent and the most costly as well as the top clinical drivers of PACs. Also, provider level analysis highlights outlier providers for whom pricing structure may be a driver (Typical costs). If these providers are true outliers, there will likely be a consistent pattern in high PACs and high episode costs across ECRs. The plan may

benefit from pushing for price transparency among providers with low PAC rates, but high episode costs. Chances are episode costs are high because those particular providers have dominant market share (as discussed above), and price transparency combined with value-based benefits has the potential to erode artificial market power. These are items to contemplate when negotiating risk corridors. Further, as payers go through the process of selecting ECRs to target for improvement, several criteria can be used:

1. What portion of total medical spend does this ECR represent?
2. What is the volume of cases for this ECR?
3. How many dollars, in total and on average, are spent on PACs within this ECR?
4. How many dollars, in total and on average, are spent on Typical care within this ECR?
5. Does this ECR represent a condition or procedure that is a focus or priority within the health plan and/or the provider community?
6. Are there leveragable/existing quality improvement programs in place or in development around this ECR?
7. Are there leveragable/existing process/system improvement programs in place or in development around this ECR?

And as they move from ECR selection to contracting, the key negotiable questions are:

1. What are the PAC percentages that should be converted into an Allowance for each contracted ECR?
2. At what point does the stop-loss get triggered?
3. What is the total size of the “donut hole” for the provider? Is that a financially manageable amount?
4. Are there any reserves that should be created to cover the donut hole either by applying withholds to on-going FFS payments or the posting of a bond?