



White Paper

# Will Your Accountable Care Organization Pilot Succeed? Predict Success with Just Four Numbers.

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# Executive Summary

Many of us with long memories recall the promise of Health Maintenance Organizations (HMOs) in the '80s and '90s. We look critically at the proposals for Accountable Care Organizations (ACOs), trying to identify the important differences and the potential for making this similar construct more successful at improving the performance of the healthcare system.

Advocates hope that changes to payment methods will lead to a reorganization of care systems achieving the three aims of:

- Better care for individual patients
- Improved population health
- Lower growth in healthcare expenditures

These advocates describe several important differences between HMOs and ACOs. Many of these relate to new relationships between hospitals and physicians that have developed in recent years, or specific intentions to provide better care for the chronically ill, informed by extensive research on effective care for these patients. We may justifiably be skeptical as to the contribution of these differences to actual

success in transforming the market. We do, however, agree that experience over the past decade has taught us two important things:

- In the absence of significant reform, there is no reason to expect the historical rate of cost increases for healthcare to level-off or decrease. This spending trajectory is unsustainable in a healthy domestic economy competing in a global marketplace.
- Methods developed and applied in other sectors to measure and improve performance can be applied to the healthcare system. As new information technology systems are implemented throughout the healthcare system, the data necessary to support performance improvement are becoming more available and more clinically robust.

In the long term, whether or not the market will again settle and stabilize at historically modest net income margins for healthcare providers on a lower-than-projected expense per capita foundation depends on national and local market forces. Payers will attempt to preserve multiple competitive providers in local markets to control monopolistic pricing that might eat up the savings of a lower utilization base. It may be necessary for a hospital to participate in these payment reform experiments to maintain market position during a real transition to a smaller number of or reconfigured set of providers that serves a population at higher value levels.

For a hospital or other large healthcare organization experimenting with these new payment models, success will depend on access to accurate information on the current market and the characteristics of population health and utilization of services.

If a complete transition of the local market is inevitable, the organization's objective is to exit the transition with a financially viable role and position. The organization's strategy can be refined as the transition actually unfolds and assumptions are tested in the market. Even for those who expect to be market leaders, the best strategy may actually result in early financial losses but with eventual returns in future years.

As the organization plans for participation in these new payment models, it will be important to critically review assumptions and expected results with all network providers as experiments proceed. Each participant group must transition successfully for the entire system to succeed. There will be some necessary changes in the number and composition of affiliated facilities and professionals, but the resulting network must eventually work for each of the participants.

### **Just Four Numbers**

It's likely that many organizations will pursue alternative payment opportunities strategically rather than tactically. Their goal will be focused on future success in a potentially transformed market. However even these strategic initiatives will need to demonstrate short-term tactical success. For early adopters, this short-term success, or lack of it, will certainly influence the shift of the market toward a tipping point. Therefore it will be important to set clear objectives and expectations for ACO pilot success. One element of this success will certainly be financial, and more specifically, improving patient outcomes while contributing to the sponsors' net income. The organization should focus on the four numbers that will predict the level of financial success of the pilot.

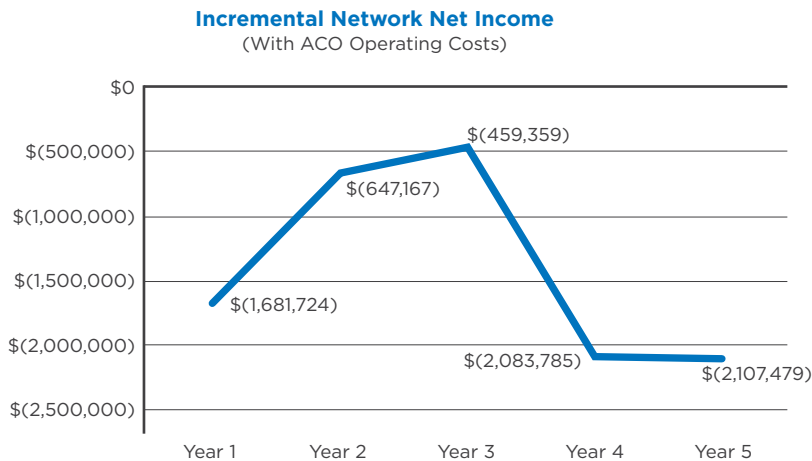
### 1. Number of attributed members

The standard ACO model attributes members based on a plurality of primary care physician (PCP) office visits to affiliated physicians. They may also require that a PCP participate in only one ACO. It is important to attract a number of members that's sufficient to justify the required investments in new care processes and programs. For example, with a diabetes prevalence rate of 5.5 percent, a 10,000-member ACO will include approximately 550 diabetics. If a large number of PCPs are required to attract this population for participating payers, it's possible that each PCP could be caring for only a handful of these patients, making it difficult to justify significant changes in each physician's system of care. Since any change in diabetes care processes will be good for all patients, not just those in the ACO, it may be appropriate to spread the cost of a pilot program across all diabetic patients when calculating the "fully-implemented" financial impact of the ACO. The cost attributed to non-ACO patients will be absorbed in the short term by the organization in anticipation of future ACO membership.

### 2. Current ACO member in-network and out-of-network utilization and payments

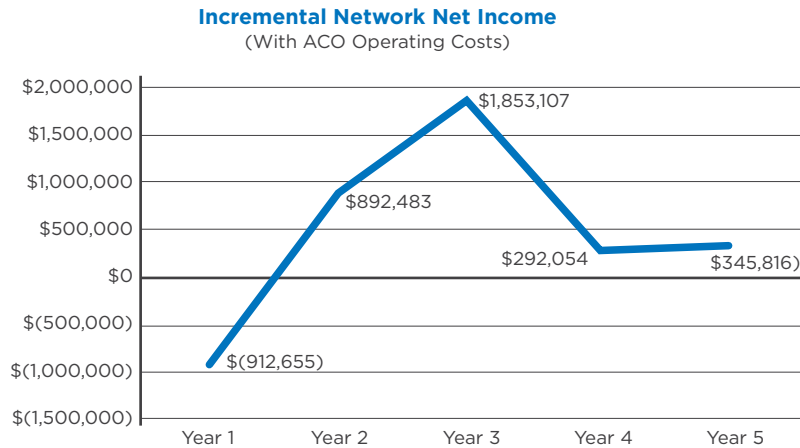
A recent analysis of Medicare data for a proposed Pioneer ACO indicated that a significant number of services and associated payments for attributed members were to non-network providers. The extent of this "leakage" varied by type of service and provider type but made it clear that a successful pilot requires a thorough analysis of these patterns and a possible reconfiguration of the ACO provider network.

**Figure 1: Truven Health Pioneer ACO Model - No Increase in Share of Services**



This graph shows financial results from the Truven Health Pioneer ACO Model for a 10,000 member Pioneer ACO with no increase in the ACO network's share of services provided to ACO members. Note that the drop-off in year four is due to rebasing the target for that year.

**FIGURE 2: Truven Health Pioneer ACO Model – 5 Percent Increase in Share of Services**



This graph demonstrates the effect of increasing that share by five percent per year, compounded for the first three years. This shift is required to achieve a positive effect on net income in the second year. Without this shift, the ACO effect is negative throughout the five-year agreement.

### 3. Opportunities to reduce utilization and service unit costs

The magnitude of the opportunity to reduce costs through improved care management is not the same for all potential ACO populations. For example, it is likely that the savings available in better managing Medicare populations with chronic conditions is significantly greater than for a young, employed, commercial population. It is possible that the affiliated PCP network attracts a biased sample of the community's population (e.g., more or less chronic disease). Even for a Medicare population, the presence of a Medicare Advantage plan in the area could bias the pool of members available for a fee-for-service ACO. Although readmissions for a Medicare population will undoubtedly be greater than for a commercial population, it's not necessarily true that the proportion that can be avoided with better care coordination is the same.

The flip side of saving through avoiding acute care for chronically ill patients is the loss of fee-for-service (FFS) revenue for those services. This has been clear to every hospital considering this accountable care future. Most hospital executives have traditionally focused on tactics to increase utilization, since reducing costs in response to decreasing utilization has been challenging. Payers will be watching for attempts to shift costs to the remaining FFS business. In evaluating the financial impact of the ACO pilot, the short-term loss in FFS revenue should be considered, but the opportunity to respond in the long term with necessary reconfiguration of facilities and services must be evaluated. (See example below.)



## The Financial Impact of Chronic Conditions

Most ACO advocates suggest that a significant opportunity for savings is in reducing the need for acute care services for patients with chronic conditions. Appropriate preventive care and monitoring of patient health status should reduce the incidence of acute exacerbations and avoid the development of long-term complications requiring intensive treatment. In the case of diabetes, many patients develop minor vascular complications that require ongoing treatment. Many go on to develop more significant complications that require additional ongoing treatment and, more importantly, immediate acute care services (e.g., hospitalization). An analysis of the Truven Health MarketScan® database of commercial medical and pharmacy claims demonstrates the financial impact of these often-preventable complications.

The prevalence of diabetes in this employed, non-Medicare population is 58 per 1,000.

- 76 percent of these patients are without complications and have an average cost of \$450 per year
- 22 percent of patients have minor complications and have an average cost of \$1,050 per year
  - Examples of complications and impact on cost:
  - Retinopathy: \$775
  - Vascular disease: \$980
  - Cellulitis: \$2,300
  - Gangrenous infection: \$8,600
  - Osteomyelitis: \$12,500
- Two percent of patients have major complications and an average cost of \$6,800 per year
  - Examples of complications and the impact on cost:
  - Renal failure: \$6,225
  - Ketoacidosis: \$5,500
  - Sepsis: \$23,300
- For an ACO population of 10,000 = 580 diabetics (441 uncomplicated, 127 minor complications, 12 major complications)
  - Preventing 50 percent from developing minor complications would save \$38,400
  - Preventing 100 percent from developing major complications (constrain to minor) would save \$69,000
  - Preventing these complications would save \$107,400 or \$10.74 per member per year (PMPY)

Another analysis of diabetic patients in the MarketScan database identified 11 percent of patients with comorbid Coronary Artery Disease (CAD). CAD is a recognized risk factor for serious complications of diabetes and increased mortality risk. The annual cost for these patients was 3.4 times the cost for those without this comorbidity (\$25,400 vs. \$7,500).

- For an ACO population of 10,000 = 580 diabetics, 64 with comorbid CAD
  - If the ACO could reduce the number with comorbid CAD by 50 percent, it would save \$572,800 or \$57.28 PMPY

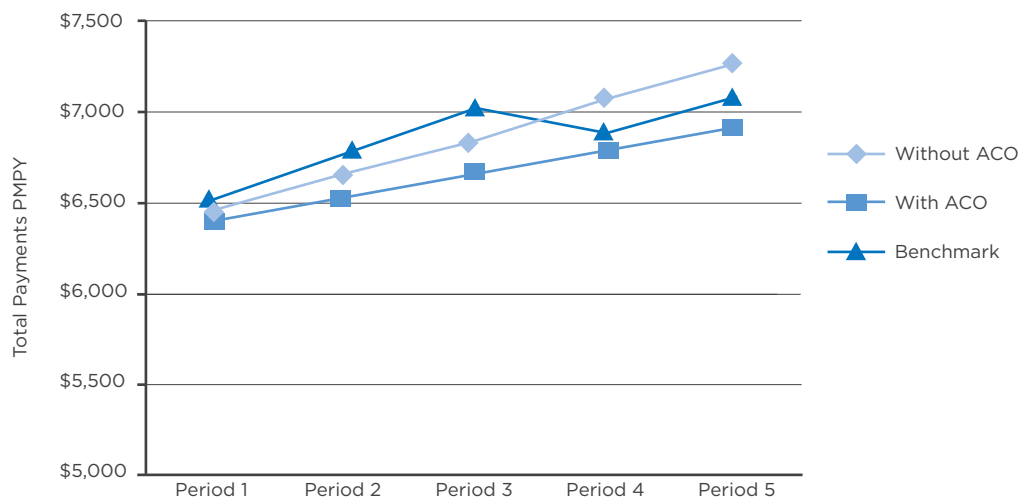
#### 4. The ACO's "baseline" and payer financial terms

Proposed accountable care programs are designed to share savings from improved efficiency and effectiveness of care with the accountable providers. An ACO pilot's success may depend on the method used to set the original baseline and to periodically recalculate this baseline as savings are achieved. We should assume that the market will not necessarily allow these higher margins to continue in the absence of continuing improvements. Why should this market be different than others? Therefore, expect that these programs will include some sort of "rebasings" method to reset targets, while preserving incentives to control the rate of increase in cost.

Setting the original baseline may or may not consider the current relative cost (“efficiency”) of the ACO’s network compared to other networks in the market. One approach would recognize current network efficiencies and award immediate shared savings to the ACO. However the payer may be more interested in providing the less efficient network with an incentive to improve performance than to reward past performance and may require that all baselines be set at historical network-specific payment levels. Not only do these inefficient networks have greater opportunities and perhaps a better chance to save, but the value of a given saving percent is higher for these less efficient networks. On the other hand, encouraging more membership in the better performing network would benefit both patients and the payer. The success of an ACO pilot may depend on its baseline and the willingness of the payer to encourage continued high relative performance and to provide member incentives to seek care from ACO providers.

The Truven Health Pioneer ACO Model demonstrates the financial impact on a low cost network of the method applied to calculate the baseline.

**Figure 3: Truven Health Pioneer ACO Model – Financial Impact on a Low Cost Network**



In this scenario, the red line shows the trend in total FFS payments with a modest savings of one percent per year compounded for five years. The green line shows the trend in the benchmark, which includes the effect of blending the relative and absolute reference population trend. Without this blending and rebasing in the fourth period, the benchmark would trend as the blue line. The “shared savings” is the difference in each time period between the ACO value and the benchmark. In this example, the green and red lines diverge for the first three years as the absolute difference in per member per year (PMPY) between the ACO and the reference population continues to increase. In the fourth period, the benchmark is “rebased” and the pattern potentially repeated. Without the blended benchmark trend and the rebasing, early savings (benchmark minus actual PMPY) would be reduced, but future savings would continue to increase.

## How Will Accountable Care Organizations Reduce (or Slow) the Growth in Healthcare Spending?

Let's face it, no one really knows how, or even if, this will happen or the magnitude of the real opportunity for improvement in the system's performance. What will specific providers do differently in an ACO? Why and how will they make these changes?

Exactly what do we expect to happen? How is this different than the HMO movement?

### Focus on Health and Health Services Improvement

Regarding value drivers, these new organizations will focus on:

- Preventing disease incidence and complications
- Managing condition severity (especially in the multiple chronic disease population)
- Reducing service duplication and unnecessary services
- Implementing effective palliative care, assuming this will result in better quality of life and reduced total treatment costs

The reality of the HMO movement was that most organizations quickly focused on reducing short-term utilization metrics and quickly lost the long-term perspective on health maintenance. The intention is that these new accountable care organizations focus attention on true health and healthcare management, with simple measures of services utilization being secondary indicators rather than driving management and pricing decisions.

### Organizational Integration and Incentive Alignment for the Covered Population

Regarding organizational efficiency, ACO organizations at their core are expected to redesign broken care transition processes and accountabilities by creating incentives for appropriate participation by all required resources. The HMOs of the past quickly devolved to using existing FFS mechanisms that maintained the disincentives for individual providers to do the right thing.

The intent is that an ACO cede more control to the PCPs. In fact, most policy makers hoped that PCPs "own" the ACO benefiting from a significant share of positive financial results. However it is likely that most ACOs will be managed by hospitals and large health systems. In these cases, it's likely that little financial return will get to the PCPs. However, PCPs on salary or other performance-based payments could feel empowered to redesign care. Because it's likely that many physician services will be paid as FFS, maintaining the incentive to provide more services and little incentive to control utilization or modify practice, ACO success will require that incentives are better aligned.

### Transition to the “Tipping Point”

For hospitals to survive this transition and maintain income margins, they will look to increase their ACO population in proportion to the per person reduction in its demand for inpatient and other acute services. The hospital will need to simultaneously maintain inpatient utilization levels from traditional payment sources. In many markets, a hospital’s attributed ACO population will initially receive a large proportion of its care from other hospitals and outpatient facilities. If the intended decrease in the utilization of acute care services for the ACO population occurs, the hospital will need to bring that utilization under its own “tent” to maintain inpatient volume and backfill reduced ACO inpatient utilization.

### Selective Outsourcing to “Focused Factories”

Changes in payment methods will challenge the FFS-driven variability in unit prices for many specific services within a given market. Payers will expect that ACOs compete on the basis of population value and costs. As an ACO attempts to direct its members to its own facilities, it will decide on an efficient mix of services and look to other organizations only for those services that it can’t efficiently provide. This will create a new price-sensitive market for these less common services.

### Measuring Care by IT-Enabled Metrics

The successful organization will effectively manage care by engaging the patient in the care process and establishing a trusted relationship. The organization and its providers will need timely information on patient choice and access to ensure that these efforts are successful. Other service and retail sectors have used data to monitor these patterns and develop practices to maintain a productive relationship with the consumer.

A significant and real public concern with HMOs was the financial incentive to withhold care. This concern was encouraged by physician comments to patients, blaming the HMO for constraints on access. While it’s not clear that the HMO movement resulted in a negative impact on the overall quality and outcomes of care, it is certainly true that this perception limited the widespread acceptance of this model. Most people would be delighted to have a trusted relationship with a physician and a system of care that was concerned and charged with the well-being of its patients, but in most cases an HMO just didn’t seem to offer this relationship. An HMO often applied quality measures only as performance thresholds to avoid potential underutilization of important services.

An ACO will need to measure and communicate “value” to its patients and payers. Better data is available to the ACO than was traditionally available to the HMO. And yet, while many more quality-of-care measures have been developed and endorsed, they still fall short of adequately measuring value. New information technology will make it possible to monitor patient access and to facilitate appropriate levels of care. These prospective or “real-time” information sources should enable the processes to manage the total population’s health, while focusing resources on the patients who need immediate interventions to prevent increased severity and complications.

### A Critical Impediment: Do It With “One Hand Tied Behind Your Back”

A major challenge for ACOs is the requirement that Medicare beneficiaries have open access to non-affiliated providers. The original HMO model restricted access to affiliated providers and in most cases a PCP “gatekeeper” to control access to specialists. The transition of HMOs to more open access in response to consumer market demands may have significantly contributed to their failure to achieve lasting performance improvement. This will be a major challenge for the ACO model.

### Summary

Participation in payment reform experiments may be necessary for providers to maintain market position as the healthcare landscape adapts to changes in the relationships between the payers and providers of these services. Each organization’s success will largely be measured by the ability to secure a financially viable role and position in the market. This will depend on its ability to use data from a variety of sources to create the information needed to anticipate and respond to a population’s overall health characteristics and the related need for the care required to maintain and improve its health. This data will also provide necessary insights on the current provider network and any requirements for enhancement or reconfiguration.

The four numbers that will predict the level of financial success of the pilot are:

1. The number of attributed members
2. Current ACO member in-network and out-of network utilization and payments
3. Opportunities to reduce utilization and service unit costs
4. The ACO’s “baseline” costs and payer financial terms

Methods are available to investigate each of these numbers. Diligence in acquiring the data to measure and monitor these numbers and critically analyzing them will position an organization for success in an ACO environment.



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## About the Author

Bob Kelley

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Mr. Bob Kelley is responsible for the development and ongoing enhancement of all analytical methods incorporated in the decision support applications. These applications are used by health plans and large employers to measure and evaluate provider performance and to identify opportunities for improvement.

Mr. Kelley is directly responsible for Thomson Reuters Medical Episode Groupers (MEG), one of the leading episode groupers applied to the measurement of physician efficiency. He is an expert in both the clinical and statistical methods applied in the grouper, and is knowledgeable of the challenges and appropriate solutions in the use of episodes for evaluating cost efficiency.

Mr. Kelley has 30 years of experience in the healthcare industry. During his 10 years with Thomson Reuters, he has advised dozens of large employers and health plans on analytical methods, has designed decision support applications, and created and managed a national consulting practice.

As director of the Saint Joseph Mercy Quality Institute, a quality improvement organization within Trinity Health, he was responsible for measuring and monitoring quality and efficiency for a multi-hospital system, a large physician IPA, and a managed care plan. Mr. Kelley was also responsible for managing a variety of performance improvement initiatives.



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