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3 steps to analyze your organization's ACO opportunity

Deciding whether a hospital or health system should establish a Medicare ACO is essentially a strategic question, requiring in-depth assessment of the hospital or health system's market, the competitive landscape, and the organization's position on the shift toward accountable care. It also requires a robust financial model.

This analysis builds on an article published in the January 2012 issue of *hfm*, "A Better Outlook for ACOs?," which considers the key strategic questions surrounding whether to establish an accountable care organization (ACO). Here, emphasis is placed on understanding the size of the financial opportunity and implications on the hospital and physician partners using a baseline financial model. Working with this baseline model, the analysis illustrates the importance of hitting the required minimum savings rate (MSR) and quality reporting targets.

To understand this opportunity, we consider the financial impact in three steps:

- > Step 1: Assess the Impact of CMS's calculation of ACO shared savings
- > Step 2: Assess factors determining the ACO revenue statement
- > Step 3: Assess the net impact on hospital revenue statement

THREE-STEP ACO IMPACT ASSESSMENT			
	CMS Calculation of ACO Shared Savings	ACO Revenue Statement	Net Impact on Hospital Revenue Statement
Revenue	"Revenue" = Medicare benchmark spending for ACO population	Shared savings	Patient services plus share of ACO surplus/deficit
Expense	"Expense" = Total spending for ACO population (hospital/physician/other)	ACO operations	Hospital operations
Surplus/Deficit	Shared savings \$	ACO surplus/deficit \$	Hospital surplus/deficit

CMS

Physicians

Baseline Model

For our baseline model, we assumed that a 30,000-member ACO, starting in July 2012 has opted to participate in Track 1 to avoid taking on risk for the first agreement period. We also assumed that the shared savings generated by the ACO are to be divided 50/50 between the physician participants and a hospital partner, after ACO operating costs have been covered. This approach allowed us to assess the impact on the hospital in the equation. Note, however, that a physician-only ACO could operate without shared savings accruing to the hospital.

We further assumed that inpatient utilization could be decreased by 10 percent over the contract period and that the ACO would achieve strong quality reporting (90 percent) and meet required benchmark performance on most measures (75 percent). Finally, we created a breakeven scenario for the hospital, in which any losses in utilization would be offset by a combination of gains in the share of ACO admissions that occur at the sponsoring hospital and shared savings from the ACO.

Step 1: Assess the Impact of CMS's Calculation Of ACO Shared Savings

The Center for Medicare & Medicaid Services (CMS) benefits when an ACO effectively reduces its annual expenditures relative to past expenditures. If an ACO does not meet its MSR, CMS retains all of the savings. However, if the ACO meets its MSR, CMS shares some of the savings with the ACO. In our baseline model, we assumed that the ACO surpasses its MSR, prompting CMS to share savings. The following discussion outlines each step in the shared savings calculation.

Revenue. To estimate benchmark spending, we multiplied the average annual Medicare payment per beneficiary by the number of members in the ACO. This calculation points to benchmark spending of over \$250 million annually (see exhibit below).

Expense. Next, we determined how much CMS spends on our 30,000 members during a performance year. Expenses for CMS will be less if the ACO can effectively reduce utilization. The likeliest way for an ACO to generate savings is through reduced inpatient utilization as a result of increased care coordination. Other factors, such as decreases in ancillary and specialist visits and increases in primary care visits, are important, but may be offset by increases in some of these services, possibly creating a net neutral effect. Therefore, for our baseline case, we estimated CMS would pay about \$10 million less on hospital expenses each year, assuming a benchmark of 10,380 inpatient admissions among the ACO's members and a 10 percent reduction in inpatient admissions relative to the benchmark. Based on this estimate, for example, payments for inpatient care would decrease from about \$113 million to roughly \$102 million in 2014 (see exhibit at top of page 3).

Surplus/deficit. By reducing payments for inpatient admissions, a surplus is created. Under our baseline scenario, savings generated by the ACO total \$33.8 million over the 3.5-year contract period (see upper exhibit at bottom of page 3).

The ACO starts in July 2012; 2012 therefore represents just six months of savings generated. Therefore, for the remainder of this analysis, the ACO's results for 2012 will be summed with those of 2013, so that

ACO BENCHMARK EXPENDITURES					
	2012*	2013	2014	2015	2012-2015
Average annual Medicare payment per beneficiary	\$8,400	\$8,600	\$8,900	\$9,200	
ACO Members	30,000	30,000	30,000	30,000	
Benchmark expenditures (millions)	\$126	\$259	\$267	\$275	\$927

* Amount for 2012 represents only six months of benchmark expenditures, given the ACO's July 2012 start.

CALCULATION OF SAVINGS: ESTIMATED CHANGE IN ACO EXPENDITURES, 2014

	Benchmark	Target	Change
Admissions per 1,000	346	311	(35)
ACO members	30,000	30,000	
Inpatient admissions for ACO members	10,380	9,342	(1,038)
Average Medicare payment per admission	\$10,879	\$10,879	
Payments for inpatient admissions (millions)	\$112.9	\$101.6	\$(11.3)

the first performance period represents the ACO's first 18 months. The total estimated savings for this period, therefore, is \$10.9 million (\$2.7 million + \$8.2 million).

Any year that an ACO is able to generate a surplus, CMS will benefit by keeping at least 50 percent of the savings. In this case, CMS keeps at least \$17 million over the contract period.

Step 2: Assess Factors Determining the ACO Revenue Statement

The shared savings the ACO receives from CMS are its sole revenue source. In the case of our baseline scenario, the ACO is eligible for up to \$17 million in revenues. However, the revenues are dependent on two things:

- > The ACO's ability to meet the MSR
- > The ACO's ability to successfully report and/or achieve quality measures

If an ACO does not meet the MSR and/or does not achieve required levels for quality reporting and/or performance, then CMS retains this additional share of the savings.

Ability to meet the MSR. An ACO that does not meet the MSR will not be eligible to sharing in savings in that performance year. Therefore, to share in any of the savings generated, the ACO must meet or surpass its MSR. Depending on an organization's size, the MSR varies between 2.0 percent to 3.9 percent. Larger ACOs have lower MSRs and, thus, can more easily generate revenue.

With 30,000 members, the ACO for the baseline model has an MSR of 2.4 percent. Based on our assumptions regarding the ACO's benchmark expenditures, we can identify the actual savings dollars that the ACO must generate to meet the MSR—i.e., about \$6 million annually (see exhibit at bottom of page).

SAVINGS GENERATED BY ACO

	2012	2013	2014	2015	2012-2015
Reduction in inpatient admissions compared to benchmark	5.0%	7.5%	10.0%	10.0%	
Estimated savings generated by ACO (millions)*	\$2.7	\$8.2	\$11.3	\$11.6	\$33.8

* The ACO starts in July 2012; 2012 therefore represents just six months of savings generated. The ACO's results for 2012 will be summed with those of 2013, so that the first performance period represents the ACO's first 18 months.

CALCULATION OF MINIMUM SAVINGS REQUIRED FOR ACO TO SHARE IN SAVINGS

	2012-2013*	2014	2015
Benchmark expenditures (millions)	\$385	\$267	\$275
Minimum savings rate	2.40%	2.40%	2.40%
Minimum savings required (millions)	\$9.2	\$6.4	\$6.6

* The first performance period is the ACO's first 18 months (July 2012 to December 2013).

Ability to successfully report and/or achieve quality measures. After the ACO meets its MSR, it shares up to a maximum of 50 percent (Track 1) of all savings generated with CMS from the first dollar. The actual amount of shared savings can be lower than 50 percent, depending on quality reporting (2012-15) and performance (2014 and 2015). CMS will phase in the measures scored on reporting and quality over time (see exhibit at right).

In our baseline model, we assumed less than perfect reporting (90 percent) and performance (75 percent) scores. As a result, the ACO would receive \$13.5 million of its \$17 million, or about 80 percent of the savings it would have been eligible to receive (see upper exhibit below).

The remaining \$3.4 million of shared savings is retained by CMS. Adding this amount to the \$17 million that CMS has already retained, CMS would benefit by saving about \$20 million on this 30,000-member ACO, or about \$680 per member over the contract period. In summary, in the baseline model, CMS retains approximately 60 percent of the savings generated and the ACO gets about 40 percent of the savings generated to use as its revenues (see exhibit at bottom of page).

ACO QUALITY SCORING METHODOLOGY: PHASE-IN SUMMARY

Basis for shared savings:	2012-2013	2014	2015
Reporting	33	8	1
Performance	0	25	32
Total	33	33	33

Operating expense. Operating expenses required to ensure an ACO's success can be significant. They include medical management and administrative staff, incentive payments for physicians, and IT investments for analytics and data sharing capabilities. These costs will vary depending on the hospital's current population health capabilities and its level of IT sophistication. Estimates of the costs to set up and operate an ACO vary considerably (see exhibit at top of page 5).

We have used a moderate estimate for the baseline model (i.e., \$1.1 million in start-up costs and \$2.6 million in annual operating costs), assuming that the hospital has some existing capabilities to leverage for the ACO. Unlike the estimates by the American Hospital Association, our estimates do not include certain costs such as physician practice acquisition and EHR implementation, as these activities may

CALCULATION OF SAVINGS RECEIVED BY THE ACO (MILLIONS)

	2012	2013	2014	2015	2012-2015
Estimated savings generated by ACO	\$2.7	\$8.2	\$11.3	\$11.6	\$33.8
Sharing rate	50%	50%	50%	50%	
Estimated shared savings to ACO – before quality	\$1.3	\$4.1	\$5.6	\$5.8	\$16.9
Estimated quality score	90%	90%	75%	75%	
Estimated shared savings to ACO – after quality adjustment	\$1.2	\$3.7	\$4.2	\$4.4	\$13.5

CALCULATION OF GENERATED SAVINGS THAT ACCRUE TO CMS

	2012	2013	2014	2015	2012-2015
Estimated savings generated by ACO	\$2.7	\$8.2	\$11.3	\$11.6	\$33.8
Dollars to CMS due to sharing rate	\$1.3	\$4.1	\$5.6	\$5.8	\$16.9
Dollars to CMS due to imperfect quality score	\$0.1	\$0.4	\$1.4	\$1.5	\$3.4
Total dollars accruing to CMS	\$1.5	\$4.5	\$7.1	\$7.3	\$20.3
Percentage of savings that accrue to CMS	55%	55%	63%	63%	60%

already be covered under other hospital/health system initiatives. As a result, the baseline model includes approximately 18 additional FTEs, most of whom are medical management staff, along with several administrative staff and a medical director, as well as some costs for IT and other expenses.

ACO surplus/deficit. Under our scenario, a look at the baseline ACO's operating statement by year discloses that the ACO generates a surplus in most years (see upper exhibit below).

At times, however, the ACO will be face cash flow challenges. Shared savings will be paid out the year following each performance period. CMS has indicated that it will offer ACOs an interim payment to alleviate significant cash flow issues that they would face for the first 18 months of operations. Our baseline ACO opts for this interim payment, with the assumption that the ACO would receive the first 12 months of shared savings (July 2012 to June 2013) at the end of 2013. The payment received in 2014, therefore, represents the latter six months of performance in 2013.

The delay in the receipt of shared savings can cause the ACO to experience cash deficits across the contract period—a situation that can be challenging for many organizations (see exhibit at bottom of page).

ACO COST ESTIMATES (MILLIONS)

	CMS*	AHA†	DGA
Start-up costs	\$0.6	\$5.3	\$1.1
Annual operating costs	\$1.3	\$6.3	\$2.6
Total over the contract period	\$5.0	\$27.4	\$10.2

* Centers for Medicare & Medicaid Services, Medicare Shared Savings Program, Final Rule.

† American Hospital Association and McManis Consulting, "The Work Ahead: Activities and Costs to Develop an Accountable Care Organization," April 2011 (Prototype A).

The ACO's net income is shared equally between the hospital and physician participants in the baseline ACO. Although physicians would receive some incentive payments along the way for meeting certain performance targets, we assumed that neither party would receive its shared savings payout until the ACO has achieved a positive cumulative cash surplus, which does not occur until 2016.

Step 3: Assess the Net Impact on the Hospital Revenue Statement

An ACO generates savings primarily by reducing inpatient admissions of ACO members. Ultimately, however, achieving this result adversely affects the hospital. The portion of ACO shared savings accruing to the hospital is not enough to make up for the lost revenue due to this decrease in utilization. Before identifying ways to offset this effect on the hospital, it is necessary to quantify it.

ACO PROFIT & LOSS STATEMENT (MILLIONS)

	2012	2013	2014	2015	2012-2015
Revenue (shared savings)	\$1.2	\$3.7	\$4.2	\$4.4	\$13.5
Operating expenses	2.3	2.6	2.6	2.7	10.2
ACO net income	(\$1.1)	\$1.1	\$1.6	\$1.7	\$3.3

ESTIMATED ACO CASH REQUIREMENTS (MILLIONS)

	2012	2013	2014	2015	Close-Out
Receipt of prior-year ACO share of savings*	\$0.0	\$3.0	\$1.9	\$4.2	\$4.4
ACO operating expenses	(\$2.3)	(\$2.6)	(\$2.6)	(\$2.7)	\$0.0
Cash surplus (deficit)	(\$2.3)	\$0.5	(\$0.8)	\$1.6	\$4.4
Cumulative cash surplus (deficit)	(\$2.3)	(\$1.8)	(\$2.6)	(\$1.1)	\$3.3

* The baseline ACO opts for the interim payment. It therefore receives a payment in 2013 that represents its share of savings for the first 12 months of performance.

According to our baseline scenario, an ACO that generates \$34 million in savings leaves \$20 million in CMS’s hands and receives \$14 million from CMS, operating at a profit of \$3 million.

Revenue. To estimate the ACO’s impact on hospital revenue (patient services plus shared savings from ACO), we analyzed the expected change in hospital admissions. Although the ACO will likely reduce the overall number of admissions among ACO members, it may also increase the share of member admissions going to the sponsor hospital through improved care coordination and enhanced integration of providers. For our scenario, we assumed the hospital would see an increase in its market share from ACO member admissions from 72 percent in 2012 to 77 percent in 2014 and 2015 (see upper exhibit below).

The net result of decreases in inpatient admissions among ACO members with increases in the hospital’s share of ACO member admissions is more moderate revenue losses for the hospital (see exhibit at bottom of page).

Under our scenario, the hospital’s share of the shared savings generated by the ACO is about \$1.7 million (see top exhibit, page 7).

Hospital operations. Due to the high fixed costs of hospitals, we assumed that inpatient revenue decreases due to ACO operations would not be offset by variable cost reductions, resulting in a decline in hospital operating income of roughly \$1.6 million before shared savings (see middle exhibit, page 7).

Hospital surplus/deficit. Despite the hospital’s experience the aforementioned decline in its operating income resulting from the ACO, we also determined under our scenario that the hospital would receive \$1.7 million as its portion of shared savings from the ACO (see bottom exhibit, page 7).

In short, under our assumptions, an increase in the share of ACO member admissions paired with the shared savings received by the hospital would produce a neutral impact on the hospital. To achieve this result, it is necessary to increase the share of ACO member admissions occurring at the sponsoring hospital from 70 percent to 77 percent over the contract period. The hospital’s ability to achieve this increase in market share will depend on several factors, including the current level of leakage and the degree of splitting among participating physicians. The willingness of

ACO IMPACT OF REDUCED UTILIZATION AND INCREASED SHARE OF ADMISSIONS ON HOSPITAL, 2014			
	Current	Under ACO	Change
Inpatient admissions for ACO members	10,380	9,342	(1,038)
Sponsor hospital market share of ACO member admissions	70%	77%	
ACO member admissions at sponsor hospital	7,266	7,193	(73)
Average Medicare payment per admission	\$10,879	\$10,879	
Hospital revenue for ACO member admissions (millions)	\$79.0	\$78.3	(\$0.8)

IMPACT ON HOSPITAL INPATIENT REVENUE FROM ACO MEMBERS (MILLIONS)					
	2012	2013	2014	2015	2012-2015*
Sponsor hospital market share of ACO member admissions	72%	75%	77%	77%	
Change in hospital admissions due to ACO	(83)	(65)	(73)	(35)	(256)
Change in hospital revenue for ACO member admissions	(\$0.9)	(\$0.7)	(\$0.8)	(\$0.4)	(\$2.7)

* Numbers do not precisely add up to the total for 2012-15 due to rounding.

ACO beneficiaries to seek care within the ACO will also have to be considered.

However, if the ACO fails to increase market share incrementally, the hospital will experience significant losses—up to \$15 million in our sensitivity analysis. For this reason, as a critical strategic consideration, the hospital will require the ACO's assistance in backfilling for decreased utilization.

In sum, according to our baseline scenario, an ACO that generates \$34 million in savings leaves \$20 million in CMS's hands and receives \$14 million from CMS, operating at a profit of \$3 million. The affiliated hospital can break even only if its share of ACO admissions is increased significantly.

It should be noted, however, that a deeper analysis of this financial model might well yield more positive results for the hospital. In particular, the types of admissions that the ACO initiative would likely help to avoid would most likely be medical admissions associated with better management of chronic conditions. Such admissions tend to have significantly lower profitability for hospitals,

so losing them would not as harmful as losing the average admission, as we assumed in our baseline scenario.

Analysis of Scenarios

In addition, the scenario described previously, it is useful to consider a variety of other scenarios using this baseline ACO to assess the impact of various factors on the hospital, such as the size of the ACO, amount of savings generated, ACO operating costs, quality scores, hospital share of ACO admissions, and selection of Track 2 instead of Track 1.

If, for example, the ACO has 40,000 members (one-third more than our baseline), ACO net income and, therefore, the savings to distribute nearly double. However, under such a scenario, hospital operations would be more severely affected, as managing the care of a larger population would further reduce hospital utilization.

The size of the ACO also determines the MSR; more members mean a lower MSR, down to a minimum of 2 percent for ACOs of 60,000 members or more. For ACOs that generate savings that just meet or fail

HOSPITAL DISTRIBUTION OF ACO SHARED SAVINGS (MILLIONS)

	2012	2013	2014	2015	Close-Out
Cumulative cash surplus (deficit) of ACO	(\$2.3)	(\$1.8)	(\$2.6)	(\$1.1)	\$3.3
ACO savings available for distribution	\$0.0	\$0.0	\$0.0	\$0.0	\$3.3
ACO savings distribution – hospital	\$0.0	\$0.0	\$0.0	\$0.0	\$1.7

IMPACT OF ADMISSION CHANGES ON HOSPITAL SURPLUS/DEFICIT (MILLIONS)

	2012	2013	2014	2015	2012-2015*
Reduction in hospital revenue for ACO member admissions	(\$0.9)	(\$0.7)	(\$0.8)	(\$0.4)	(\$2.7)
Variable costs for ACO member admissions (40% of revenues)	\$0.3	\$0.3	\$0.3	\$0.2	\$1.1
Impact on hospital operating income before shared savings	(\$0.5)	(\$0.4)	(\$0.5)	(\$0.2)	(\$1.6)

* Numbers do not precisely add up to the total for 2012-15 due to rounding.

OVERALL NET IMPACT OF THE ACO ON THE HOSPITAL (MILLIONS)

	2012	2013	2014	2015	Close-Out	2012- Close-Out
Impact on hospital operating income	(\$0.5)	(\$0.4)	(\$0.5)	(\$0.2)	N/A	(\$1.6)
Hospital share of savings	\$0.0	\$0.0	\$0.0	\$0.0	\$1.7	\$1.7
Net impact on hospital	(\$0.5)	(\$0.4)	(\$0.5)	(\$0.2)	\$1.7	\$0.0

A hospital that cannot increase its share of ACO member admissions faces serious losses.

to meet the MSR, having a slightly larger membership can mean the difference between sharing in savings with CMS or have no revenue.

ACOs that do not generate meaningful levels of savings will have negative net incomes, because their operating costs will not be balanced by any substantial revenue in the form of shared savings. An ACO that does not meet the MSR will need to bear the full load of its operating costs. The impact on the hospital of an underperforming ACO may be positive though, as utilization may remain relatively constant and the share of ACO member admissions could increase.

ACOs started by hospitals with limited care management experience and minimal accountable care infrastructure will have higher start-up costs. These ACOs

will, therefore, take longer to generate positive ACO operating results. In the first contract period, there may be no shared savings to distribute to the hospital or physicians. Start-up costs are one-time expenses though and should not be given to much weight in the strategic decision on whether to become an ACO.

An ACO that scores lower on quality measures will receive less back from CMS in shared savings. The erosion of shared savings due to the ACO can be significant. This diminished revenue may result in operating an ACO at a loss. The ACO, therefore, may not have shared savings to distribute to the hospital or physicians, and the hospital will not be able to mitigate the losses it faces due to decreased utilization.

The overall impact of an ACO on the sponsor hospital is most sensitive to the share of ACO admissions that the hospital captures. If a hospital cannot increase its share of ACO member admissions (e.g., admissions remain constant at about 70 percent), it faces a serious losses; holding all other factors in the baseline model constant, losses would be over \$12 million. On the other hand, a hospital that can boost its share of admissions by an additional 3 percent (up to 80 percent

SUMMARY OF FINANCIAL RESULTS (3.5-YEAR CONTRACT PERIOD)			
	CMS Calculation of ACO Shared Savings	ACO Revenue Statement	Net Impact on Hospital Revenue Statement
Revenue	"Revenue" = Medicare benchmark spending for ACO population \$927 million	Shared savings \$13.5 million	Patient services -\$2.7 million plus Share of ACO surplus/deficit \$1.7 million
Expense	"Expense" = total spending for ACO population (hospital/physician/other) \$893.2 million	ACO operations \$10.2 million	Hospital operations \$1.1 million
Surplus/Deficit	Shared Savings \$33.8 million	ACO surplus/deficit \$3.3 million	Hospital surplus/deficit \$0

CMS
\$20.3 million

Physicians
\$1.7 million

share) would generate \$3.5 million in additional revenue. These large swings in hospital impact for relatively small variations in share of ACO member admissions underscore the importance of capturing a greater share of ACO member admissions.

The Track 2 opportunity may be attractive to ACOs that are confident they can generate savings. The more generous sharing and MSR set at 2 percent, regardless of ACO size, may outweigh the risk of sharing in losses in any years where expenditures exceed benchmarks. These ACOs would, nonetheless, be wise to reinsure against this risk.

Final Thoughts

Given the financial picture, the question about whether to establish an ACO is essentially a strategic decision. Hospitals that succeed as ACO participants will reduce inpatient utilization. Shared savings will not be sufficient to make up for the losses, so it is essential to build market share. However, if a hospital does not create an ACO and its competitors do, the hospital may lose share to those competitors anyway.

If one believes that Medicare will continue to squeeze fee-for-service payments and reward providers that manage population health, then forming an ACO may be a helpful developmental step. A lot will depend on a hospital's competitive market, physician relations, and related strategies with commercial payers and insurance exchanges.

A hospital that succeeds with an ACO will not make a lot of money from the ACO directly, but it may succeed in transforming its organization into a clinically integrated provider of high-quality care with a strongly aligned medical staff who can provide high-value, low-cost care not only to governmental but also to commercial payers.

If one believes that Medicare will continue to squeeze fee-for-service payments and reward providers that manage population health, then forming an ACO may be a helpful developmental step.

Remember, however, that the first contract period is just the beginning. After the initial three- to three-and-a-half-year contract period, it will be time to consider renewal. The ACO will need to achieve a new level of savings to succeed against tighter benchmarks, and there will be both upside and downside risk in the renewal period. It is therefore appropriate to consider related alternative strategies, such as Medicare Advantage and Medicare Select. ●

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