

# A First Look at ACOs' Risky Business: Quality Is Not Enough



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On March 31, the U.S. Department of Health and Human Services (HHS) released the proposed accountable care organization (ACO) regulations. Among the 400+ pages of discussion, policy, and alternatives, the proposal outlines the procedures for ACOs to share risk, and the data that HHS will provide to ACOs. Financially, the ACO program is about managing risk—while an “upside-only” shared savings option is available for the first two years, by year three, all ACOs must take both upside and downside risk. Downside risk means refunding Medicare payments if costs exceed targets.

Financial success or failure of an ACO will depend on meeting rules-based budgets set by the Centers for Medicare and Medicaid Services (CMS) for each ACO's population. To be successful, the ACO will need to:

1. Demonstrate quality
2. Reduce spending below targets

The Patient Protection and Affordable Care Act's (PPACA's) quality goals and even the proposed metrics have been relatively uncontroversial, and, in the authors' experience, provider organizations interested in becoming ACOs support improving quality. However, as shown below, improving quality is not likely to generate the monetary savings that CMS or ACOs seek.

Few organizations have sufficient assets for the board to gamble on the ACO program's financial downside without carefully assessing the risk. How should they evaluate this risk? Data is important, but data does not organize itself into risk analysis. Risk analysis requires actuarial models that can find and benchmark opportunities in particular categories of medical service utilization.

## SOME OF THE RISKS

CMS has stated that it believes ACOs need to share in losses if they are to succeed. Under the proposal, ACOs can share in savings or losses from the beginning or choose “upside only” for the first two years, which would give organizations a chance to gain experience with population management. However, after two years, even the “upside-only” ACOs will share in both savings and losses.

The percentage of savings available to an ACO is lower under the upside-only option.<sup>1</sup>

The proposed regulations would require that ACOs have in place a formal mechanism to pay back losses. In addition, CMS would withhold 25% of savings earned in previous years to help ensure repayment of losses.<sup>2</sup>

Savings or losses would be based on locally-defined benchmarks, although the mechanics are not completely specified. The proposed benchmark starts with a weighted average of cost for beneficiaries who would have been assigned to the ACO in each of the prior three years (although CMS considered an alternative based on the beneficiaries who actually enroll). The weighted cost is adjusted for beneficiary characteristics including health status and overall growth in Medicare fee-for-service (FFS) program costs. The benchmark, in effect, measures past ACO provider efficiency with no adjustment for relative performance.<sup>3</sup>

Shared savings requires not just financial performance, but also quality performance. CMS proposes 65 quality measures in five quality domains:

- Patient/care giver experience
- Care coordination
- Patient safety
- Preventive health
- At-risk population/frail elderly health
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ACOs will be scored in each domain and the percentage of points earned in each domain will be aggregated to arrive at a single

1 §425.5(d)(6)(A) Page 381, §425.7(c)(6) Page 397, §425.7(d)(5) Page 399.  
2 §425.5(d)(6)(B)(iii) Page 381, §425.5(d)(6)(B)(v) Page 382.  
3 §425.7(a) Page 393, §425.7(b) Page 394.

percentage that will be applied to the maximum savings rate for which the ACO is eligible. In the first year the quality standard will be set at the reporting level.<sup>4</sup>

Provider organizations whose success comes from “revenue cycle management” or astute fee negotiations may not currently have the talent in the right functions to successfully manage as a Medicare ACO. The authors expect provider system talent will need to shift efforts to design system changes; these system changes will connect to the budgets and metrics needed for the HHS ACO rules.<sup>5</sup> In particular, the proposal would require ACOs to provide CMS with their plans to encourage system change including promotion of evidence-based medicine,<sup>6</sup> beneficiary engagement, and care coordination.

**CALCULATED RISK**

In the authors’ experience, the biggest source of financial failure is not insufficient data but failure to calculate the risk.

People expecting CMS to make available comprehensive data will likely be disappointed.<sup>7</sup> CMS proposes to share aggregate data with the ACO. In addition, ACOs can request beneficiary-identifiable data, which may include beneficiary ID, date of birth, gender, procedure codes, diagnosis codes, date of service, provider/supplier ID, claim payment type, prescriber ID, drug service date, drug product service ID, and formulary identifier. However, the first time a beneficiary sees an ACO provider, he or she must be offered the opportunity to opt out of sharing this data with the ACO.

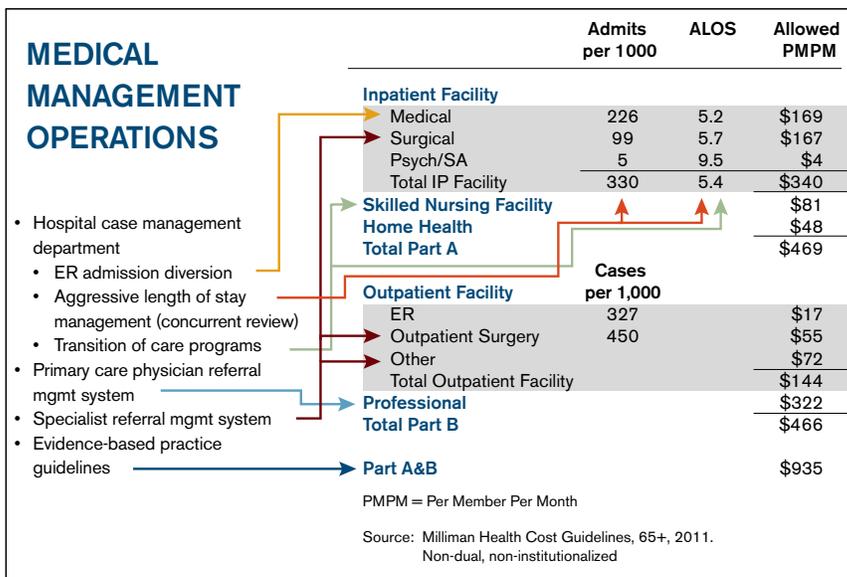
Beneficiaries would be assigned to an ACO only if the primary care physician (PCP) who provided the plurality of primary care services is affiliated with the ACO. The additional data will be provided only for beneficiaries who visit a PCP and who do not opt out.

Seasoned actuaries know that perfect data does not guarantee the right decisions; imperfect data is a poor excuse for not making decisions. Established actuarial models and available data can help organizations assess their risk and readiness now. Equally important is the fact that the models can dispel dangerous notions about how to achieve success.

The simplified diagram in Figure 1 shows the relationship between the actuarial model and operational decisions.

In practice, benchmarks for critical line items in the actuarial model would inform the provider-based medical management operations in the left side of Figure 1. For each of the line items, getting into the detail within service lines and identifying particular services with opportunity is essential to determining where

**FIGURE 1: ACO ACTUARIAL BUDGET AND CONNECTION TO ACO MEDICAL MANAGEMENT OPERATIONS**



to direct medical management resources or other resources. For example, transition of care programs from inpatient to the community may be stepped up in response to higher-than-benchmark readmission or nursing facility rates. A more proactive ER admission diversion program could be implemented to address a higher-than-benchmark rate of one-day medical stays. Processes to monitor and manage specialist referrals may be indicated if claims experience shows a higher-than-benchmark specialist/primary care physician utilization ratio.

Determining what level of reduction in particular services is reasonable and monetizing these reductions will allow feasibility testing of shared savings targets. Many of the targeted services are also associated with quality issues. For example, inpatient utilization, which contributes 36% of Part A and B spend, typically has opportunity for reduction. Figure 2 shows types of inpatient admissions are associated with inefficiency, poor quality, and excess cost. We provide definitions and national average Medicare admission rates.

As a simple illustration, a 10% reduction in these opportunity admissions (a reduction of 16 admissions/1,000) would mean a 4.8% reduction in inpatient. Assuming all admissions have the same cost, and using the national average figure that inpatient accounts for 36% of Medicare Parts A and B, the 4.8% admission reduction converts to a 1.7% of total claim dollars—below the minimum savings ratio<sup>8</sup> for shared savings. Of course, this example uses simplified assumptions (such as

4 §425.10 Page 401.  
 5 §425.5(d)(9)(vi) Page 385, §425.5(d)(9)(viii) Page 386.  
 6 Blumen, Lenderman. “Evidence-based guidelines: Essential building blocks for accountable care,” January 2011. Available at <http://publications.milliman.com/publications/healthreform/pdfs/how-using-care-management.pdf>.  
 7 Supplementary information Page 124, §425.19 Page 418.  
 8 For most ACOs the minimum savings ratio is the percentage of the benchmark that the ACOs savings must exceed in a particular year before it is eligible to receive shared savings. The proposed percentage varies by membership for the one-sided model and for the two-side model is proposed at a flat 2%. §425.7(c)(2), §425.7(c)(3), §425.7(c)(4) Page 396.

**FIGURE 2: PROMINENT OPPORTUNITIES AMONG MEDICARE INPATIENT ADMISSIONS**

TARGET	DEFINITION/EXAMPLE	INPATIENT ADMITS PER 1,000 (% TOTAL) NOT ALL OF THESE ARE AVOIDABLE
<b>AMBULATORY CARE SENSITIVE ADMISSIONS (ACSAS)</b>	<b>BETTER CARE IN THE COMMUNITY COULD PREVENT SOME OF THESE PATIENTS FROM DETERIORATING TO THE POINT WHERE THEY NEED HOSPITALIZATION. E.G., CONGESTIVE HEART FAILURE, COPD.<sup>9</sup></b>	<b>49 (15%)</b>
<b>PREFERENCE-SENSITIVE ADMISSIONS (PSAS)</b>	<b>FOR SOME COMMON SURGERIES, MEDICAL TREATMENT CAN WORK AS WELL AS SURGICAL TREATMENT. E.G., LAMINECTOMY, HYSTERECTOMY.<sup>10</sup></b>	<b>33 (10%)</b>
<b>READMISSIONS</b>	<b>FOR MANY CONDITIONS, MORE AGGRESSIVE CARE IN THE HOSPITAL AND CLOSE FOLLOW-UP AFTER DISCHARGE CAN KEEP PATIENTS FROM NEEDING TO BE REHOSPITALIZED. E.G., INFECTIONS, VTES, EXACERBATION OF CHRONIC CONDITIONS.<sup>11</sup></b>	<b>53 (16%)*</b>
<b>SHORT-STAY MEDICAL ADMISSIONS</b>	<b>A PORTION OF ONE-DAY MEDICAL STAYS DO NOT MEET MEDICAL NECESSITY FOR INPATIENT ADMISSION.<sup>12</sup></b>	<b>26 (8%)**</b>
<b>TOTAL ABOVE CATEGORIES</b>		<b>159 (49%)</b>
<b>TOTAL MEDICAL/SURGICAL INPATIENT ADMISSIONS (NATIONAL AVERAGE)</b>	<b>DOES NOT INCLUDE SKILLED NURSING FACILITY OR SUBACUTE CARE.<sup>13</sup> FIGURES ARE FOR 65+ NON-INSTITUTIONALIZED, NON-MEDICAID BENEFICIARIES.</b>	<b>330 (100%)</b>

\*16% excludes a portion of readmissions classified as ACSAs.

\*\*Excludes a portion of one-day medical stays that are classified as ACSAs and readmissions.

assuming all admissions have the same cost). In addition, ACO costs associated with enhanced outpatient management (office visits, medication compliance, adherence to preventive care, etc.) required to reduce these admissions need to be netted from the projected cost reduction.

For ACOs already operating with high efficiency, a reasonable concern is the feasibility of meeting target reductions. Except for ACOs that are operating with very low quality (very high levels of these opportunity services), the financial opportunity in these areas is limited. Provider organizations focusing only on preventing Ambulatory Care Sensitive Admissions (ACSAs), even if successful, will not produce sufficient savings to achieve financial success.

We examined regional differences in ACSAs and discovered that, as a percent of total admits, ACSAs are relatively constant. As seen in Figure 3, the percentage of ACSAs varied little between regions that we would characterize as well managed (best practice) and those that are loosely managed (national average). This small variation hints that system change must be the ultimate goal of efforts directed at particular opportunities.

Going all the way from loosely managed (national average) to well managed (best practice), removes only about 20 admits/1,000 ACSAs—out of total admits per 1,000 of over 330—for a reduction of about 6% of admissions. Figure 3 illustrates a reasonable maximum improvement, and few organizations imagine making such dramatic change.

**OPPORTUNITY AND REGIONAL VARIATION**

ACO spending targets are based on past experience. ACOs whose underlying providers have been inefficient or used high-cost providers such as teaching hospitals will have higher targets than ACOs that operate in efficient environments. It will be easier for the inefficient systems to beat their targets.

Figure 4 illustrates the huge regional differences in just two statistics—inpatient (IP) utilization efficiency and total Medicare cost. It extracts factors from Milliman’s 2011 65+ Health Cost Guidelines™.<sup>14</sup> A factor of 1.00 corresponds to national average.

A complete analysis would examine all components of Medicare spending, not just inpatient utilization. However, with hospital inpatient consuming about 36% of total spending (for 65+, non-institutionalized, non-Medicare beneficiaries, before cost

9 U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality (AHRQ) (March 12, 2007). Prevention Quality Indicators, version 3.1. Retrieved April 5, 2011, from <http://www.qualityindicators.ahrq.gov>.

10 Center for the Evaluative Clinical Sciences (2007). Preference Sensitive Care: A Dartmouth Atlas Project Topic Brief. Retrieved April 5, 2011, from [http://www.dartmouthatlas.org/downloads/reports/preference\\_sensitive.pdf](http://www.dartmouthatlas.org/downloads/reports/preference_sensitive.pdf).

11 Jencks, S. F., Williams, M. V. & Coleman, E. A. (April 2, 2009). Rehospitalizations among patients in the Medicare Fee-for-Service Program. *New England Journal of Medicine* 360(14):1418–28.

12 U.S. Department of Health and Human Services, CMS (March 28, 2011). Recovery Audit Contractor: Overview. Retrieved April 5, 2011, from <http://www.cms.hhs.gov/RAC/>.

13 65+ Health Cost Guidelines 2011 Basic Tables. Milliman, Inc.

14 For more information on this product, go to [www.milliman.com/expertise/healthcare/products-tools/health-cost-guidelines](http://www.milliman.com/expertise/healthcare/products-tools/health-cost-guidelines).

**FIGURE 3: WELL MANAGED (WM) AND LOOSELY MANAGED (LM) ACSAS PER 1,000 BY CONDITION <sup>15</sup>**

CONDITION	ACSA PER 1,000 WM	ACSA PER 1,000 LM	MANAGEMENT MARGIN	COST PER ACSA
<b>BACTERIAL PNEUMONIA</b>	9.3	13.5	31%	\$7,000
<b>CHF</b>	8.9	16.5	46%	\$10,300
<b>URINARY INFECTION</b>	3.6	5.7	37%	\$7,200
<b>COPD</b>	2.9	5.5	46%	\$4,900
<b>DEHYDRATION</b>	1.2	2.3	48%	\$7,600
<b>DIABETES LONG-TERM COMPLICATION</b>	0.8	1.6	47%	\$5,400
<b>ADULT ASTHMA</b>	0.7	1.3	47%	\$7,600
<b>ANGINA</b>	0.5	0.7	26%	\$5,800
<b>HYPERTENSION</b>	0.4	0.9	60%	\$4,200
<b>LOWER EXTREMITY AMPUTATION</b>	0.2	0.3	46%	\$6,000
<b>DIABETES UNCONTROLLED</b>	0.1	0.3	49%	\$6,200
<b>DIABETES SHORT-TERM COMPLICATION</b>	0.1	0.2	47%	\$18,400
<b>TOTAL ACSA</b>	<b>28.7</b>	<b>48.7</b>	<b>41%</b>	<b>\$7,200</b>
<b>TOTAL ADMISSIONS (ACSA AND NON-ACSA)</b>	<b>238.4</b>	<b>330.5</b>	<b>28%</b>	
<b>% ACSA IN TOTAL ADMISSIONS</b>	<b>12.0%</b>	<b>14.7%</b>		

- Costs are based on Medicare 5% paid claims and trended to 2009 by 3% annual trend rate.
- Management margin = (ACSA per 1,000 LM – ACSA per 1,000 WM)/ACSA per 1,000 LM, which suggests the percentage of potential savings for LM.
- Categories of diseases follow the definition by AHRQ of Prevention Quality Indicators, version 3.2.

Data sources: Milliman analysis of Medicare 5% sample data, 2006; Milliman Health Cost Guidelines 65+, 2011 and DRG models; and AHRQ Prevention Quality Indicators, version 3.2.

sharing), ACOs operating with low inpatient utilization and low cost will need to work hard on non-inpatient services to achieve significant savings.

Aspects of Medicare's ACO proposal promise significant benefits for ACOs seeking non-Medicare business, such as waivers from some regulatory restrictions on hospital-physician alliances.<sup>16</sup> CMS and the Office of the Inspector General are soliciting comments on waivers of the physician self-referral law, the federal anti-kickback statute, or the civil monetary penalties laws prohibiting gainsharing, which may determine how losses and start-up costs can be shared among ACO participants among other things. These features may encourage ACOs operating efficiently to pursue ACO status, if the waivers will apply to their commercial, managed Medicare, or Managed Medicaid business.

**FIGURE 4: REGIONAL DIFFERENCES FOR INPATIENT UTILIZATION EFFICIENCY AND TOTAL COST**

METROPOLITAN STATISTICAL AREA OR STATE	AREA RELATIVITY	
	INPATIENT UTILIZATION FOR IP DAYS	PARTS A & B PER CAPITA ALLOWED AMOUNTS
<b>PORTLAND, OR-VANCOUVER, WA</b>	.62	.81
<b>MAINE</b>	.75	.76
<b>MINNESOTA</b>	.75	.86
<b>VIRGINIA</b>	.94	.90
<b>FLORIDA</b>	.97	1.14
<b>LOS ANGELES-LONG BEACH, CA</b>	1.02	1.18
<b>HOUSTON-SUGAR LAND, TX</b>	1.38	1.19
<b>NEW YORK-WHITE PLAINS, NY-NJ</b>	1.28	1.20
<b>NATIONWIDE RELATIVITY</b>	1.00	1.00
<b>NATIONWIDE AMOUNT</b>	1,779 DAYS/1,000	\$935 PMPM

These figures were developed to reflect a standard non-institutionalized, non-Medicaid, 65+ Medicare population. Per capita allowed amounts are before applying standard beneficiary cost sharing. Allowed amounts reflect both utilization and unit costs, so they are influenced by local cost-of-living levels.

15 Fitch, K. & Iwasaki, K. (January 2009). Ambulatory care sensitive admissions: A key metric in evaluating health plan medical management effectiveness. Milliman Research Report. Retrieved April 5, 2011, from <http://www.nybgh.org/pdfs/ambulatorycare.pdf>.

16 CMS and OIG Notice and Solicitation of Public Comments on Waivers in Connection with Sections 1899 and 1115A of the Social Security Act; IRS Notice 2011-20 requesting comments regarding the need for guidance on participation by tax-exempt organizations in the Medicare Shared Savings Program through ACOs; Joint FTC and DOJ Proposed Statement of Enforcement Policy Regarding Accountable Care Organizations Participating in the Medicare Shared Savings Program (Antitrust Policy Statement).

## CONCLUSION

For the "A students," the value of ACOs seems to lie on the commercial, managed Medicare, or managed Medicaid sides, where the payor can direct volume. Perhaps the A students can use ACO credentials to attract PCPs historically aligned with high-cost or inefficient competitors. However, considered in isolation, the proposed rules offer much less upside to ACO A students who operate in very efficient systems than to ACO C students who operate in systems with a lot of inefficiencies. The opportunity resides with providers that have yet to successfully pursue efficiency, while those that have undergone such efforts may face limited upside. This reinforces the need for potential ACOs to assess the financial risk of becoming an ACO. Data and actuarial models will be key to this assessment.

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