Accountable Care Organizations:
What is the Evidence?

Julia G. Shaw, MPH
Health Care Policy Analyst
Vermont Legal Aid
Office of Health Care Advocate

January 2014
Accountable Care Organizations: What is the Evidence?

By Julia Shaw

Contents
Introduction .......................................................................................................................... 4
  What is an Accountable Care Organization (ACO)? .......................................................... 4
  Possible Benefits of the ACO Model .................................................................................. 4
  Possible Risks of the ACO Model ..................................................................................... 4
Background ......................................................................................................................... 5
  Status of ACOs in the United States .................................................................................. 5
Data on ACOs ....................................................................................................................... 6
  Medicare ACO Programs .................................................................................................. 6
  Commercial ACO Programs ............................................................................................. 8
  Medicaid ACO Programs .................................................................................................. 9
    Colorado: Accountable Care Collaborative ................................................................. 9
    Minnesota: Health Care Delivery Systems Demonstration .......................................... 10
    Oregon: Coordinated Care Organizations ................................................................... 11
Conclusion ......................................................................................................................... 12
**Introduction**

*What is an Accountable Care Organization (ACO)?*

An Accountable Care Organization (ACO) is a network of doctors and other health care providers that agrees to be held accountable for the cost and quality of care for a defined patient population. If the cost of care for the patient population ends up being less than would have otherwise been expected, and health care quality is maintained or improved, the providers get to keep a share of the cost savings. These cost savings are an incentive for providers to cooperate and reduce health care spending (e.g., by avoiding unnecessary tests and procedures and preventing duplication of care). Proponents of ACOs argue that they are a way to fundamentally change the way health care is delivered. The hope is that ACOs will improve health care quality and reduce health care costs by getting providers to work together and focus on the *quality* of care rather than the *quantity*.1

**Possible Benefits of the ACO Model**

Ideally, a successful ACO would provide low cost, coordinated, high quality health care to its patient population, and impact the health of the greater community. It is largely unknown what factors will be most important to the long-term success of ACOs. However, it is likely that for ACOs to be effective, they will need to be patient-centered and focus on communication and coordination of care. To achieve coordination between providers and seamless information sharing, ACOs will need to invest in tools (such as improved Electronic Health Records (EHRs) to allow for greater communication and cooperation between providers) and personnel (such as care managers to facilitate care coordination). Without these investments it is unlikely that ACOs will be able to achieve their goals.2

**Possible Risks of the ACO Model**

One notable risk of the ACO model is that health care providers will reduce costs by limiting access to health care services rather than by improving coordination of care. For example, providers might choose not to order a necessary test because of the cost, or they might “cherrypick” patients (choose healthier patients, or refuse patients with potentially expensive health conditions). Because of this risk it is essential that ACOs have rigorous quality reporting methods, including measures related to patient experience and access to care. It is also important for incentive payments to be closely tied to the performance of

---


ACOs on these quality metrics. Additionally, patients and consumers must have an avenue for reporting grievances, and ACOs must have procedures for addressing such grievances.

Another risk of the ACO model is increased consolidation of hospitals and medical practices, which could leave fewer independent hospitals and doctors, reduce competition, and drive up costs. Finally, it is important to note that even with improved coordination of care, ACOs may not realize savings.

**Background**

The term “Accountable Care Organization” was coined by Dartmouth researcher Elliott Fisher in 2006. However, the ACO model had a number of precursors, most notably the Physician Group Practice Demonstration (PGPD) which was the first pay-for-performance initiative for physicians under the Medicare program. The five year PGPD “created incentives for physician groups to coordinate the overall care delivered to Medicare patients, rewarded them for improving the quality and cost efficiency of health care services, and created a framework to collaborate with providers to the advantage of Medicare beneficiaries”. Another early ACO-like model was the Alternative Quality Contract (AQC), which was first implemented by Blue Cross Blue Shield of Massachusetts (BCBSMA) in 2009. Provider groups in the AQC system assumed accountability for spending, similar to ACOs that accept financial risk.

**Status of ACOs in the United States**

The Patient Protection and Affordable Care Act (PPACA) accelerated the spread of ACOs in the United States by authorizing the Center for Medicare and Medicaid Services (CMS) to create the Medicare Shared Savings program (MSSP). Since 2010, the number of ACOs

---


5 See, Section 3022 of the PPACA.
has jumped from an estimated 227 to over 400.\textsuperscript{10} There are now ACO models for Medicare, Medicaid, and commercial payers. Medicare ACOs cover approximately 4 million beneficiaries across the country.\textsuperscript{11} Of the more than 400 ACOs currently in existence, 23 are part of the Pioneer ACO Program, 220 are part of the Medicare Shared Savings Program (35 of these are also Advanced Payment ACOs), and over 160 are private/commercial ACOs.\textsuperscript{12}

\textbf{Data on ACOs}

Despite the rapid spread of ACOs, data on both quality of care and cost savings under the ACO model are limited. Available data show mixed results for cost savings, with some ACOs demonstrating savings and others demonstrating no savings or losses. Some ACOs have also reported quality improvements. There are a number of limitations to the ACO cost and quality data that have been released to date. Most results have been partial and have been presented only via press release or internal report. There are very few peer-reviewed publications examining quality of care or cost savings data for ACOs. One published study of the PGPD found statistically significant savings only for dual eligibles (patients eligible for both Medicare and Medicaid). The authors of that study noted that it was unclear whether savings were achieved by improving efficiency or by changes in coding practices (“upcoding”).\textsuperscript{13} Year 1 quality data for the Pioneer ACOs look promising in comparison to published data for the fee-for-service Medicare population.\textsuperscript{14} However, organizations were selected for the Pioneer ACO program based on their prior experience coordinating care. It is likely that these organizations already performed better than average prior to becoming ACOs.

The available data on ACOs are limited in quantity and quality, and difficult to analyze in a meaningful way. Given these data limitations and the rapid pace at which ACOs are forming, close monitoring is necessary to ensure that ACOs fulfill their goals of achieving savings \textit{and} improving quality of care.

\textbf{Medicare ACO Programs}

Ten physician groups participated in the five year (2005-2010) PGPD. Quality measures were phased in starting with diabetes measures in year 1. Additional measures on

\begin{footnotes}
\end{footnotes}
congestive heart failure and coronary artery disease were added in year 2, and hypertension and cancer screening measures were added in years 3, 4 and 5. Of the 10 groups, all achieved some or all quality benchmarks in each of the five years. However, each year only between 2 and 5 of the 10 groups received shared savings. Modest overall per-beneficiary savings were reported by Colla et al., with statistically significant savings demonstrated for patients dually eligible for Medicare and Medicaid only. It is disputed whether the achieved savings were due to legitimate improvements in efficiency or to risk adjustments attributable to upcoding. Per Colla et al., “the most policy-relevant lessons from our study are that the PGPD institutions saved the most money treating the sickest patients (those with dual eligibility) and the enormous heterogeneity across institutions in how they responded to the PGPD.”

Following the PGPD, the Pioneer ACO Model was designed for health care organizations and providers that were already experienced in coordinating care. Pioneer ACOs are required to have ≥15,000 beneficiaries. The model aims to move from a shared savings/shared risk payment model (years 1 and 2) to a population based payment model (year 3). Year 1 (2012) had 32 participating ACOs under a “pay for reporting” model. Thirteen ACOs received shared savings, 2 had shared losses, and the remaining 17 had no shared savings or shared losses. Seven ACOs that did not produce savings left the Pioneer program to apply to the Medicare Shared Savings Program (MSSP), and 2 ACOs abandoned the ACO model entirely after year 1. Overall, Pioneer ACOs performed better than published rates in fee-for-service Medicare for all 15 clinical quality measures for which comparable data were available (seven measures had no comparable data in the published literature). It is not clear whether these organizations already performed better than the published rates prior to becoming ACOs. In interpreting these results, it is important to keep in mind that the Pioneer ACOs were selected based on their prior experience coordinating care.

Costs for the nearly 670,000 Medicare beneficiaries served by Pioneer ACOs grew by 0.3% in 2012, compared with 0.8% for a comparable patient population. After the shared

19 See, Centers for Medicare and Medicaid Services, Pioneer Accountable Care Organizations succeed in improving care, lowering costs, 2013.
savings are paid out to the ACOs, the Pioneer ACOs will have produced an estimated net savings to Medicare of $33 million for 2012.\textsuperscript{20} Total Medicare spending for the year was $536 billion.\textsuperscript{21} Notably, a recent study found that baseline spending for ACO patients was significantly lower than baseline spending for non-ACO patients.\textsuperscript{22}

The first year did not measure quality against performance benchmarks, but ACOs were evaluated and rewarded based on their reporting of quality measures. All 32 year 1 participants successfully reported all measures.\textsuperscript{23}

Two other ACO models under CMS recently completed their first year. The Medicare Shared Savings Program (MSSP), designed for ACOs with \(\geq 5000\) fee-for-service beneficiaries, was anticipated to have first year results out by the end of 2013.\textsuperscript{24} However, no MSSP results have yet been released. The Advance Payment ACO Model (available to certain providers already in or interested in the MSSP) was designed for physician-based groups and rural providers. Selected participants receive upfront and monthly payments, which they can use to make investments in their care coordination infrastructure.\textsuperscript{25}

**Commercial ACO Program**

The AQC, first implemented by BCBSMA in 2009, was one of the earliest commercial ACO models. Provider groups in the AQC system assume accountability for spending, similar to ACOs that accept financial risk, and are eligible to receive bonuses for quality.\textsuperscript{26} Song et al. report that average spending increased for enrollees in the AQC system as well as for control groups in year 1 and year 2 of the project (2009 and 2010), but that increases were smaller for enrollees in the AQC (2009: $15.51 (1.9\%) less per quarter \((P = 0.007)\); 2010: $26.72 (3.3\%) less per quarter \((P = 0.04)\)).\textsuperscript{27} Per Song et al., the savings came largely from the following: shifts in outpatient care toward facilities with lower fees; lower

---


\textsuperscript{21} See, M. Evans, *Still finding their way: Pioneer ACOs see modest savings in first year, with nearly one-third dropping out*, Modern Healthcare, 2013.


\textsuperscript{23} See, M. Evans, *Still finding their way: Pioneer ACOs see modest savings in first year, with nearly one-third dropping out*, Modern Healthcare, 2013.


expenditures for procedures, imaging, and testing; and reduced spending for dual eligibles. In year 1, the AQC system was associated with an improvement in performance on measures of the quality of the management of chronic conditions in adults (P<0.001) and of pediatric care (P = 0.001), but not of adult preventive care. In year 2, improvements were again seen in quality of management of chronic conditions in adults (P < 0.001) and pediatric care (P < 0.001), and in year 2 improvement was also seen in adult preventive care (P <0.001).

In 2009 (year 1), all AQC groups met budget targets and received savings. However, total BCBSMA payments to AQC groups, including bonuses for quality, exceeded the estimated savings in year 1. In 2010 (year 2), ten of the eleven organizations in the contract met budget targets and received savings. All organizations earned a 2010 quality bonus, and most received infrastructure support. It is likely that total BCBSMA payments to AQC groups in 2010 again exceeded savings achieved by the group that year.

**Medicaid ACO Programs**

An increasing number of states have approved and are beginning to implement Medicaid ACOs. States pursuing Medicaid ACOs include: Alabama, Arkansas, Hawaii, Illinois, Louisiana, Maine, New Jersey, Utah, and Vermont. The National Academy for State Health Policy (NASHP) website provides state by state information on the implementation status of ACOs covering Medicaid populations. State Medicaid ACO initiatives that are currently underway are summarized briefly below.

**Colorado: Accountable Care Collaborative**

Colorado was the first state to have an operational Medicaid accountable care program, called the Accountable Care Collaborative (ACC), which was established prior to passage of the Affordable Care Act (ACA). The ACC is similar to the ACOs outlined in the ACA in many ways; however, Colorado’s program interacts directly with clients as well as providers, whereas the federal ACO model focuses solely on providers.

---

Ibid.

Ibid.

Ibid.


The ACC began enrollment in May 2011 and completed its second year in June 2013. As of that time, total program enrollment was 352,236 members, including 222,862 children. 47% of all Medicaid clients (729,074) were enrolled in the ACC program. In the first two years, three utilization measures were reported: emergency room utilization, inpatient hospital readmissions, and utilization of high-cost imaging services. After year 1, the ACC reported a 0.23% increase in ER utilization for ACC enrollees compared to an increase of 1.47% for non-enrollees; an 8.6 percentage point reduction in hospital readmissions compared to the non-enrolled group, and a 3.3 percentage point decrease in utilization rates of high-cost imaging services compared to the non-enrolled population. The ACC also reported a reduction in the rates of preventable hospitalizations and readmissions for clients with asthma and clients with diabetes, lower rates of aggravated chronic health conditions such as asthma and diabetes, and a reduction in total cost of care for clients enrolled in the ACC Program (estimated between $9 and $30 million).

In year 2, the ACC reported that readmissions continued to decline to 15-20% below the expected benchmark. On average, clients enrolled in the ACC demonstrated 0.9 percentage points less ER utilization above benchmark levels when compared to clients not enrolled in the ACC. In year 2 high cost imaging utilization was reported to be approximately 25% below the expected benchmark. The ACC reported a $44 million gross ($6 million net) reduction in total cost of care (cost avoidance) for clients enrolled in the ACC Program.

NB: All of the above data is from reports produced by the Colorado Department of Health Care and Financing. To the author’s knowledge, neither comprehensive data nor independent evaluations of the Colorado ACC have been published.

Colorado has also received a State Innovation Model (SIM) grant. Under this grant the state will work on integrating behavioral and clinical health care through incentives to providers.

Minnesota: Health Care Delivery Systems Demonstration

In 2011, Minnesota launched a Health Care Delivery Systems Demonstration within its Medicaid program. The goals of the demonstration included encouraging providers to innovate to improve the value of their care, focusing on primary care and care

---

38 See, Colorado Department of Health Care Policy and Financing, Legislative Request for Information - Year 2, 2013.
coordination, and testing payment models that increase provider accountability. Minnesota received a SIM grant in 2013 to expand upon this demonstration. Under this grant, the state will support Accountable Communities for Health that integrate medical care, mental health and chemical dependency, community health, public health, social services, schools and long-term supports and services.\(^{40}\)

The first phase of the SIM project included implementation of 9 ACO contracts under the Health Care Delivery Systems Demonstration.\(^{41}\) Initial ACO contracts included a coalition of 10 Federally Qualified Health Centers (FQHCs) which formed the FQHC Urban Health Network (FUHN) in the Minneapolis-St. Paul area.\(^{42}\) The second phase of the project included another round of ACO contracts, expanding the number of attributed Medicaid enrollees. The ACO model includes resources and infrastructure support for measurement, quality improvement, data exchange, and practice transformation.\(^{43}\) The third phase will begin in July 2014, and will include continued testing of ACOs and infrastructure support. The Community Care Team model will be expanded to fifteen “Accountable Communities for Health,” which will bring together ACO providers and organizations representing the population and service needs of each community.\(^{44}\)

To the author's knowledge, no data is yet available from Minnesota’s Health Care Delivery Systems Demonstration.

Oregon: Coordinated Care Organizations

The Oregon Legislature established the Oregon Integrated and Coordinated Health Care Delivery System in June 2011. The system consists of a statewide network of Coordinated Care Organizations (CCOs) that aim to provide integrated and coordinated health care for Medicaid enrollees. CCOs operate under a fixed global budget, with quality incentives to be phased in over time.\(^{45}\) All Medicaid beneficiaries are included in this system, including those dually eligible for Medicaid and Medicare. CCOs are required to cover and provide all services for beneficiaries, including physical, behavioral, and oral health; comprehensive transitional care; and linkages to community and social support services.


\(^{41}\) Ibid.


\(^{44}\) Ibid.

Only long-term care services are currently excluded.\textsuperscript{46} Thirteen CCOs launched on August 1, 2012.\textsuperscript{47}

In 2013, Oregon received a SIM grant which the state plans to use to spread the CCO payment model to the Public Employees Benefit Board, to Medicare for dually eligible individuals, and to commercial payers. The Oregon Health Authority will create a Transformation Center to support testing and improvement of the state’s Coordinated Care Model, as well as to facilitate the spread of the model to other payers.\textsuperscript{48}

To the author’s knowledge, no data is yet available from Oregon’s Coordinated Care Organizations.

\textit{Conclusion}

The ACO model is spreading rapidly in the United States. To date, there is very little data available on the effectiveness of this ACO model in reducing health care costs and improving quality of care. The data that are available show mixed results. There is also a dearth of data available on what steps ACOs should take and what investments they should make in order to be most effective.

While the ACO model may be a promising step on the road to system-wide health reform, it is not yet well supported by data, and it comes with risks. It is essential that ACOs be closely monitored to ensure that patients receive necessary care and that cost savings come from care coordination rather than reductions in care.

\textsuperscript{48} Ibid.

\textbf{Julia Shaw} is a health care policy analyst at Vermont Legal Aid’s Office of Health Care Advocate. The Office of Health Care Advocate provides free advice and advocacy for all Vermonters with health care and health insurance concerns. If you have any questions or comments, please contact Julia at jshaw@vtlegalaid.org.