

Overview of Research on ACO Performance

Introduction

The Medicare Shared Savings Program (MSSP) has grown and evolved considerably since its inception in 2012, and many policymakers and health industry leaders view the ACO model as a promising solution for the significant challenges facing Medicare as tens of millions more beneficiaries enter the program over the next 15 years. As the MSSP continues to grow, it is important to reflect on the effect of ACOs on Medicare, including the impact on beneficiary care, health outcomes, quality, utilization, cost, and overall savings/losses to the program. While few dispute the need to evaluate the MSSP, there are differing opinions and approaches on how to best analyze the program.

Because 2012 was a partial performance year, the Centers for Medicare & Medicaid Services (CMS) considers 2012 and 2013 together as the first performance year for the program. CMS initially released data on the MSSP in late 2014, and typically releases performance data for the program about nine months after the close of the performance year. Delays in publicly available data from CMS made it difficult to draw early conclusions about the program, but new research is being released as evaluators and academics analyze new data and draw conclusions based on the first few years of the program. Further, evaluating the “success” of the ACO program depends on how success is defined. It’s important to not just look at ACO performance relative to CMS-manufactured benchmarks. Skilled evaluators need to look beyond those benchmarks by comparing ACOs to providers not in ACOs, comparing ACO spending over time, and considering other effects of the program (e.g., spillover effects on other programs within Medicare such as Medicare Advantage or effects beyond Medicare).

The transition to value-based payment is expected to take years, and it’s critical that there be careful evaluations, such as those below, on the true effects of ACOs and other value-based payment programs. However, there are challenges associated with evaluating ACOs, such as how to appropriately account for the significant investments ACOs make up front and understanding the tension between short-term spending (to invest in things like quality and care coordination) and long-term savings. Further research is expected moving forward, which will help shed light on the true effects of ACOs on Medicare, beneficiaries, and the healthcare industry.

This resource summarizes some of the key quantitative studies that contribute to our understanding about the positive effect of ACOs. Please email advocacy@naacos.com to suggest additional research that should be added to this document.

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Summary of Key ACO Studies

Association Between Medicare Accountable Care Organization Implementation and Spending Among Clinically Vulnerable Beneficiaries

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Publication Source / Date: Journal of the American Medical Association / June 20, 2016

Link: <https://www.ncbi.nlm.nih.gov/pubmed/27322485>

Data Source Used for Evaluation: Medicare Claims, 2009 – 2013

Overview:

The study looks at the effect of Medicare ACOs on spending and high-cost institutional use for all Medicare beneficiaries and for clinically vulnerable beneficiaries. The study found that spending in both groups was reduced when beneficiaries were treated by ACO providers compared to non-ACO providers.

Summary of Methodology and Key Findings:

The researchers used five years (2009 – 2013) of all Part A and Part B Medicare Fee for Service (FFS) claims data to compare spending and usage of beneficiaries cared for by ACO physicians to those cared for by non-ACO physicians. There were two study populations, one representing overall Medicare beneficiaries and the second representing clinically vulnerable beneficiaries. Clinically vulnerable was defined as age 66 or older with at least three Hierarchical Condition Categories (HCCS).

Findings from this study showed that the total spending decreased by \$34 per beneficiary-quarter after ACO implementation in the overall Medicare population and by \$114 per beneficiary-quarter in clinically vulnerable patients. The authors also observed a 1.3 percent reduction in hospital spending and a 5 percent reduction in skilled nursing spending, as well as significant reductions in emergency department use and hospitalizations. The date an ACO started in the MSSP did not affect these reductions but the authors noticed a slight increase in spending with longer ACO participation. The authors also observed an

anticipatory effect of participating in an ACO, which could lower benchmark spending and make it more difficult to achieve savings according to CMS calculations.

Conclusions:

The results show that the ACO model has early modest reductions in spending and high-cost institutional use for patients with multiple clinical conditions. More longer term research is needed to fully understand the structural changes that will take more time to demonstrate savings and improved health care outcomes.

Early Performance of Accountable Care Organizations in Medicare

Author(s): J. Michael McWilliams, MD, PhD, Laura A. Hatfield, PhD, Michael E. Chernew, PhD, Bruce E. Landon, MD, MBA, and Aaron L. Schwartz, PhD

Publication Source / Date: New England Journal of Medicine / June 16, 2016

Link: <http://www.nejm.org/doi/full/10.1056/NEJMsa1600142#t=article>

Data Source Used for Evaluation: Medicare Claims, 2009 – 2013

Overview:

The MSSP shares savings with ACOs if spending is below a financial benchmark by more than a certain threshold, known as the Minimum Savings Rate (MSR), and provided the ACO meets other criteria. CMS sets the financial benchmark based on risk adjusted average Part A and B Medicare per capita expenditures for FFS beneficiaries. The benchmark is modified and updated annually during a contract period and is rebased at the start of a new contract period.

Summary of Methodology and Key Findings:

Medicare claims from 2008 through 2013 were analyzed for a 20 percent sample of FFS beneficiaries. For each study year, beneficiaries were included in the study if they were continuously enrolled in both the current and previous year. The control group included beneficiaries attributed to non-ACO providers. The study also categorized MSSP ACOs into organizational type (integrated with hospitals, independent multispecialty physician groups, or independent physician groups).

The study results showed that MSSP participants were associated with early savings among ACOs that entered the program in 2012 compared to those who began in 2013. When comparing organizational type, savings were also found to be greater for independent physician group practices than those practices integrated with hospitals.

Conclusions:

The findings show early Medicare spending reductions for ACOs that started in 2012 compared to those ACOs that started in 2013. However, results suggest that gains achieved early for MSSP participants may not generalize to later cohorts.

Changes in Medicare Shared Savings Program Savings from 2013 to 2014

Author(s): J. Michael McWilliams, MD, PhD

Publication Source / Date: Journal of the American Medical Association / Research Letter / September 9, 2016

Link: <http://jamanetwork.com/journals/jama/fullarticle/2552452>

Data Source Used for Evaluation: Medicare Claims, 2009 – 2014

Overview:

In the first full year (2013) of the MSSP, modest spending reductions were offset by shared saving payments. MSSP ACOs are eligible for shared saving payments if spending is below a financial benchmark and the ACO meets other criteria.

Summary of Methodology and Key Findings:

Medicare claims data from 2009 to 2014 were analyzed, comparing a MSSP cohort by start year and a random 20 percent sample of FFS beneficiaries. A regression model was used to compare changes in the ACO-attributed beneficiaries from before and after the start of the ACO contracts to the non-ACO attributed beneficiaries (control group).

Comparing the 2012 cohort with the control group, the researchers found spending reductions increased significantly between 2013 to 2014. In the 2013 cohort, estimated spending reductions also significantly changed from 2013 to 2014. In 2013, shared saving payments exceeded spending reductions, but in 2014 spending reductions exceeded shared saving payments across all three MSSP cohort years, saving Medicare \$287 million in net savings or \$67 per ACO-attributed beneficiary.

Conclusions:

By 2014, spending reductions in the MSSP had exceeded shared saving payments demonstrating early signs that this is a fiscally viable alternative payment model. Additionally, findings from subgroup analysis suggest that physician-hospital integration may not be required for ACOs to be successful.

Savings from ACOs – Building on Early Success

Author(s): J. Michael McWilliams, MD, PhD

Publication Source / Date: Annals of Internal Medicine / Ideas and Opinions / October 11, 2016

Link: <http://annals.org/aim/article/2566329/savings-from-acos-building-early-success>

Data source used for evaluation: References data from other journal articles, including *Early Performance of ACOs in Medicare* and *Changes in Medicare Shared Savings Program Savings*, which are summarized above.

Overview:

The MSSP represents the largest new payment model implemented by CMS and is a leading reason why the Department of Health and Human Services' goal of moving half of Medicare payments away from FFS by 2018 remains possible. Expectations of instant savings from the MSSP were unrealistic, especially considering ACOs are redesigning their care systems and learn which cost-cutting strategies are most effective.

Summary of Methodology and Key Findings:

Recent estimates have found that MSSP ACOs have nearly doubled their spending reductions from 2013 to 2014 (from 0.8 percent to 1.5 percent, respectively) creating a net savings of \$287 million to Medicare. Although the net savings amount to just 0.7 percent of total spending for MSSP beneficiaries, actual savings

to Medicare are grossly underestimated, by both CMS and formal evaluations, because ACO spending reductions indirectly affect Medicare spending in the following ways:

- 1) Provider responses to ACO contracts probably also affect care to non-attributed patients
- 2) ACO spending reductions—regardless of offsetting bonuses—reduce ACO benchmarks because they lower spending growth rates which are used to update the benchmarks each year;
- 3) Spending reductions by ACOs similarly lower Medicare Advantage (MA) spending because MA plans are directly tied to local FFS spending.

Thus, the 2014 MSSP actual net savings to Medicare were closer to \$685 million or 1.6 percent of spending for MSSP beneficiaries.

Conclusions:

Recognition of the full and growing savings produced by the MSSP underscores the importance of encouraging program participation and understanding for key policy decisions. The authors remind that health care system reform is slow and incremental and that great strides are possible over time but require tradeoffs between short-term gains and long-term success.

Little Evidence Exists To Support The Expectation That Providers Would Consolidate To Enter New Payment Models

Author(s): Hanna T. Neprash; J. Michael McWilliams, MD, PhD

Publication Source / Date: Health Affairs / February 2017

Link: <http://content.healthaffairs.org/content/36/2/346.abstract>

Data Source Used for Evaluation: Medicare Claims, 2008 – 2013

Overview:

Stakeholders and policymakers are concerned that payment reform, such as the ACO model, could accelerate provider consolidation by incentivizing physician groups to merge with hospitals in order to bear financial risk for the total continuum of care of beneficiaries. During the years studied there was an increase in consolidation, but there is little evidence to suggest that this was due to adoption of ACOs and consolidation was well underway prior to authorization of the MSSP and Pioneer ACO programs.

Summary of Methodology and Key Findings:

The authors looked at the relationship between MSSP and Pioneer ACO participation and multiple measures of horizontal and vertical consolidation from before (2008 – 2010) and after (2011 – 2013) the Medicare Shared Savings Program was permanently authorized. The researchers did this by first identifying beneficiaries that were cared for by ACOs and those that were not. Next, they measured physician-hospital integration by examining place-of-service codes to determine where treatment was occurring. For each year in the study, each physician's share of claims in a hospital-owned practice compared to an office setting was determined.

Between 2008 – 2013 for the average metropolitan statistical area, physician hospital integration increased by 6.3 percentage points (from 16.8 percent of physicians in a hospital-owned practice to 23.1 percent). Physician concentration, physician group size, hospital concentration, and inpatient and outpatient price indices all also experienced a statistically significant increase. The changes however were minimal between the pre-Affordable Care Act period, 2008 – 2010, and the post period, 2011 – 2013. Also, markets with

greater ACO participation in 2014 did not experience differential changes in physician-hospital integration, physician group size, or commercial prices.

Conclusions:

The researchers found that consolidation was under way before the ACO programs were established. The researchers conclude that payment reform has been associated with little acceleration in consolidation in addition to trends already under way, but there is evidence of potential defensive consolidation in response to new payment models.

A Multilevel Analysis of Patient Engagement and Patient-Reported Outcomes in Primary Care Practices of Accountable Care Organizations

Author(s): Stephen Shortell, Bing Ying Poon, Patricia Ramsay, Hector Rodriguez, Susan Ivey, Thomas Huber, Jeremy Rich

Publication Source / Date: Journal of General Internal Medicine / February 3, 2017

Link: <https://link.springer.com/article/10.1007/s11606-016-3980-z>

Data source used for evaluation: observational study of 16 randomly selected practices in two large ACOs.

Overview:

In 2011, 46 million Americans have been diagnosed with cardiovascular disease (CVD), diabetes, or both, representing a combined healthcare cost of \$354 annually. The need for primary care practices that effectively engage patients is increasing with the greater number of chronic illnesses and the movement towards more accountable care delivery.

Summary of Methodology and Key Findings:

The study randomly selected 16 practices within two ACOs, Advocate Health Care in Chicago and DaVita HealthCare Partners in Los Angeles. Patients were randomly selected to take a patient activation survey based on those who had diabetes and/or CVD and who met study eligibility criteria. Primary care team members from the participating practices also completed surveys on practice culture, relational coordination and teamwork.

The study found that patients who received care from teams with more developed patient-centered cultures were significantly more likely to score above the median on the PHQ-4 assessment on having fewer depression symptoms (better scores on the PHQ-4 assessment) and above the median on better physical health scores. Also, patients reporting better assessment of their chronic illness care were significantly more likely to score above the median on the PHQ-4 assessment, reporting fewer depression symptoms, and have above-median physical health scores and above-median social health scores.

Conclusions:

The study found that diabetic and CVD patients from ACO-affiliated practices had lower depression scores and better physical functioning. Patients who were more activated in participating in their care also reported lower depression scores and improved social and physical outcomes.