

Accountable Care Organizations

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In the historically fragmented U.S. health care system, care has been delivered by multiple providers with little or no coordination, raising issues with access, cost, and quality. Under the Affordable Care Act (ACA), the Centers for Medicare and Medicaid Services (CMS) is guiding several experimental programs in health care payment and delivery. A fundamental element of this reform is the development of Accountable Care Organizations (ACOs), which offer providers financial rewards if they can reduce Medicare cost expansions and ensure quality standards. Alternative payment models are not only in the center of current U.S. government efforts, but have also gained international attention. Due to their heightened importance, this essay provides a general overview of ACOs based on a theoretical analysis of the existing body of literature. Evaluation of cost reduction and quality improvement of early ACOs show promise but also unintended incentives for providers through the benchmarking methodology. Enacting the Final Medicare Shared Savings Rule in 2016, the government is making continuous efforts to reset providers' incentives to strengthen their satisfaction and maintain ACO participation.

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1 Healthcare Delivery in America: Shift from Volume to Value

The American government is making a great effort to change payment models for healthcare delivery. The shift from current fee-for-service (FFS) payments to alternative payment models aims to provide not only better care for patients but also lower costs (CMS, 2016a, p. 1). Turning away from incentivizing providers to increase the volume of services, the government strives to tie payments to quality and value. Improving healthcare delivery, Accountable Care Organizations (ACOs) have a strong impact on making this shift. Through this model, a set group of providers are held contractually accountable to payers for the cost and quality of the care they provide for a specific population (Cimasi, 2013, p. 1).

The aim of this essay is to provide a general overview of ACOs in America. After explaining the formation process of accountable care in the 1970s, this paper focusses on basic structures of ACOs, like important definitions, compensation information, and participating players. The Status Quo in Section 4 contains how ACOs are spread around the United States and how they performed so far. For a better understanding of current benchmarking challenges, Section 5 points out unintended incentives, resulting inefficiencies, and the government's response. It is followed by a conclusion with forecasted developments.

2 Accountable Care: From Managed Care to ACO

While ACOs have only recently become popular in the American healthcare industry, the concept of *accountable care* is found in the origin of the managed care movement. The Health Maintenance Organization Act of 1973 provided prepaid group practice plans as an alternative to America's traditional fee-for-service system. The act authorized \$375 million for the development of Health Maintenance Organizations (HMOs), which are "prepaid health plan model[s] that use provider networks with a system of primary care gatekeepers and capitated provider reimbursement incentivizing decreases in utilization and increases in the efficiency of care for HMO members" (Cimasi, 2013, p. 5). Reducing the separation between medical service provision and compensation, capitation succeeded in controlling healthcare costs in a variety of settings, leading not only to an expansion of managed care in the private sector but in the public as well (Lago et al., 2005, pp. 5-6). The managed care approach flourished all over the United States and reached its high point in the mid-1990s. Employers widely accepted these less costly HMOs, leading to the enrollment of around 65 million Americans in these plans in 1996 (Cimasi, 2013, p. 5; Lago et al., 2005, pp. 7-8). While managed care performed well in reducing costs, individual providers opposed non-physician control over the medical profession and resisted changes in reimbursement models. Parts of the

cost-reduction were also due to physicians underproviding services for fear of surpassing their spending thresholds (Cimasi, 2013, p. 5). As a result, patient dissatisfaction rose as they saw both their access to care restricted and a decline of medical quality (Blendon et al., 1998, pp. 80, 83). This so called *managed-care backlash* describes a dramatic drop of the approach in the late 1990s (Enthoven, 2005, p. 101). History clearly indicates that integrated organizations have great potential to reduce costs, but ensuring quality and patient's acceptance is essential for these plans to remain viable. Currently, most states have laws ensuring wider public choice and access for still-existing managed care plans (Cimasi, 2013, p. 6).

McClellan et al. (2010) describe the American health system as “neither effective nor sustainable” (McClellan et al., 2010, p. 982), characterized by high medical expenditures, overuse, and fragmentation. Compared to all 34 OECD countries, America not only spends the greatest share of its gross domestic product on healthcare but also shows the greatest relative growth in health expenditures (OECD, 2017). In 2011, almost all Medicare spending was FFS payments, creating strong financial incentives for physicians to increase the volume of services they delivered with little incentives to ensure value or quality of care (Meyer, 2011, p. 1,228). Against this background, there is great interest across the United States in improving health care delivery, performance, and payment mechanisms.

Required by the Affordable Care Act, the Centers for Medicare & Medicaid Services (CMS), an agency within the Department of Health & Human Services (HHS), established the *Medicare Shared Savings Program* in 2012. Using Medicare, the nearly universal coverage program for older adults, the program aims to provide better care for patients, achieve better health for communities, and lower costs through improvements in healthcare delivery (Barnes et al., 2014, p. 1 and CMS, 2016a, p. 1). In 2015, for the first time in history of the Medicare program, HHS set explicit goals for alternative payment models. Turning away from FFS payments, it is targeting to tie 85% of all Medicare payments to quality or value by the end of 2018 (HHS, 2015). In addition to this self-commitment, the statement signals healthcare providers to get involved in alternative payment models, such as bundled payment. In March 2016, HHS announced that they reached the interim goal of tying 30% of Medicare payments to quality ahead of schedule. ACOs, which experienced a boom through the MSSP, represent about three quarters of this success, allowing health care providers to better coordinate care for Medicare patients (HHS, 2016).

3 Basic Structures of Accountable Care Organizations

3.1 Definition and Objectives

CMS defines ACOs as “groups of doctors, hospitals, and other health care providers, who come together voluntarily to give coordinated high-quality care to their Medicare patients” (CMS, 2017a). If providers can slow the growth of patient healthcare costs, for example by reducing unnecessary services, while ensuring good quality of care, they will receive financial rewards. Contrary to the fragmented care that often results from FFS payments, ACO providers are striving to deliver seamless, high-quality care for Medicare beneficiaries across different care settings (CMS, 2016a, p. 2).

Known as the Three-Part Aim (originally called Triple Aim), proponents believe that ACOs will deliver better quality and outcomes, improved patient experience, and lowered per capita costs (Berwick et al., 2008, p. 760 and IHI, 2007, p. 2). While ACO-like models have been implemented in the private sector for years, ACOs for Medicare patients were established nationwide with the Affordable Care Act in 2010 (Auerbach et al., 2013, p. 1,781). Intended to shift the delivery of health services from an emphasis on volume to an emphasis on value, ACOs constitute an innovative model in America (Hofler and Ortiz, 2016, p. 1).

3.2 Variations in Medicare-ACO Models

While ACOs administered by CMS receive the most attention, the numerous commercial ACOs are more flexible in individual contract agreements as they are only subject to ordinary legislation. The coexistence of various kinds of ACOs creates an ideal environment of learning and improvement (Schulte et al., 2017, pp. 373-374). The following provides an overview of different types of Medicare ACOs. Besides the regular program, CMS is constantly developing and testing different models with a smaller number of participants to expand their knowledge for future ACO development.

With 480 ACOs, the permanent *Medicare Shared Saving Program (MSSP)* is the most popular model administered by CMS. An ACO must apply and meet certain criteria to participate, requiring a service population of at least 5,000 Medicare FFS patients and participation for at least three years. ACOs can either chose a one-sided risk model, where they may receive shared savings but are not liable for shared losses, or the more ambitious two-sided model, where they may receive a greater portion of shared savings but also share losses (CMS, 2016a, p. 4).

The *Advance Payment ACO Model* ran from 2012 to 2015 and was mainly designed for physician-based and rural providers. It supported them with upfront and monthly payments instead of retrospective shared savings, providing the startup capital necessary to grow infrastructure and finance staff for care coordination (CMS, 2017b). Maintaining the idea of pre-paid shared savings, the *ACO Investment Model* started in 2015. Building

on knowledge gained through Advanced Payment ACOs, it aims to encourage ACOs to take on greater financial risk and to set up new ACOs, especially in underserved areas. The more advanced *Pioneer ACO Model* only addressed providers with previous experience in coordinating care and managing the appropriate infrastructure. Running until 2016, Pioneer ACOs took on higher levels of shared savings and risks than any other ACOs in the MSSP and were designed to test innovative ways of compensating and regulation (CMS, 2017f). For example, they derived most of their clinical service revenues from value-based payments of private insurers, with some ACOs converting parts of their FFS reimbursements into a monthly population-based payment (Pham et al., 2014, p. 1,636). Even with experienced leadership, this ACO model turned out to be very challenging. While only 8 of the initial 32 Pioneer ACOs remained in the fifth and final performance year, most switched to the less ambitious and lower risk MSSP. Growing from these experiences, CMS announced the *Next Generation ACO Model* at the end of 2016, providing 44 organizations with the opportunity to take high levels of financial risks and rewards. The model provides better predictability of financial targets through refined benchmarking and tools to support patient engagement and care (CMS, 2017e). Finally, the *Comprehensive ESRD Care Model* strives to improve care for beneficiaries with End-Stage Renal Disease (ESRD). As this disease is causing complex health needs and requires multiple provider visits, the model aims to create incentives for improved patient-centered and coordinated care as well as reduce medical costs associated with this condition (CMS, 2017d).

3.3 Healthcare Providers

Any Medicare-enrolled provider or supplier is free to join an ACO. The collaboration can be composed of a range of healthcare organizations such as hospitals, independent practice associations, multi-specialty medical collaborations and groups of doctors or other providers (Goldsmith, 2011, p. 33). The Medicare ACO programs do not specify a set composition of providers that must be included, requiring only a minimum service population of Medicare beneficiaries (Colla et al., 2016, p. 432).

3.4 Compensation via Benchmarking

Healthcare providers participating in Medicare ACOs receive regular remuneration for covered Medicare services through the FFS system. Additionally, ACO annual performance is measured against an individual benchmark calculated by CMS that indicates whether the ACO generated savings or losses for the Medicare program. The benchmark is an estimation of “what the total Medicare Fee-For-Service [...] expenditures for assigned ACO beneficiaries would otherwise have been in the absence of the ACO” and is updated every year (CMS, 2016a, p. 4). Following the idea of value-based payments, a combination of efficiency and quality is needed for reward (McCellan et al., 2014, p.

1,509). Therefore, only “ACOs that meet or exceed a minimum savings rate (MSR), satisfy minimum quality performance standards, and otherwise maintain their eligibility to participate in the Shared Savings Program are eligible to receive a portion of the savings they generate” (CMS, 2017a, p. 3). The CMS quality measurements are classified in four, equally weighted domains: patient experience, care coordination/patient safety, preventive health, and at-risk population. Over the three-year implementation period, CMS payments shift from ACOs simply reporting these measures to the entities bearing risk for meeting performance targets (MedPac, 2016, p. 3).

3.5 Patient’s Assignment

Unlike HMOs and managed care programs, ACOs do not limit patients in their choice of healthcare provider. Beneficiaries are freely able to choose any Medicare-enrolled provider regardless of their participation in an ACO (MedPac, 2016, p. 1). However, if an attributed patient chooses a provider outside of the ACO, the ACO remains responsible for the costs. This incentivize physicians to provide patients with exceptional care in order to maximize ACO retention (MedPac, 2016, p. 1). From a patient’s perspective, coordinated care and quality improvements are intended to lead to less paperwork and fewer repeated medical tests due to electronic health record utilization (Barnes et al., 2014, p. 2).

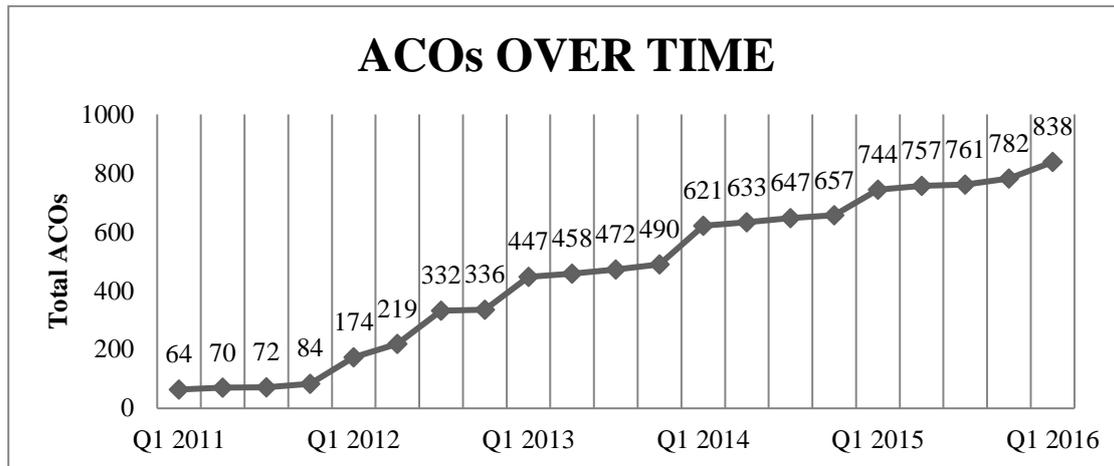
Nevertheless, CMS has to assign beneficiaries to an ACO since the yearly performance-measurement is based on a defined patient population. In most cases, the assignment is made retrospectively at the end of each year based on the population served during that period. For advanced two-sided models, a prospective method uses data from one year to assign patients to the ACO for the following year (CMS, 2016a, p. 6). Generally, prospective methods avoid problems of free-riding and resource expenditure on patients who are not attributed to the ACO, while retrospective methods ensure a larger overlap of the assigned and the treated populations (Lewis et al., 2014, p. 592).

4 Status Quo – ACOs in America

4.1 Number of ACOs

The consulting company Leavitt Partners estimates a total of 838 public and private ACOs in January 2016, showing a significant increase in previous years as shown in Figure 1. With an estimated 28.3 million people, ACOs are covering 8.9% of the American population (Muhlestein and McClellan, 2016).

Figure 1: ACOs Over Time



Adapted from: Muhlenstein and McClellan, 2016.

More than 600 ACOs are managed by CMS. Currently they register 480 MSSP ACOs, 45 Investment Model ACOs, 37 Comprehensive ESRD Care Model ACOs and 44 Next Generation Model ACOs. Still, contracts of private payers usually cover larger numbers: The 17.2 million lives covered by private payer ACOs dwarfs the 11.1 million covered by MSSP ACOs in 2016 (Muhlestein and McClellan, 2016).

4.2 Composition of Healthcare Providers

More than half of ACOs include a hospital, which generally provides more capital, advanced data sharing, and better engagements of providers across the care continuum (Colla et al., 2016, p. 437). Additionally, hospital care influences several ACO quality measures, such as readmission rates and medication reconciliation. Still, findings indicate that “ACOs with a hospital do not report significant differences in their capabilities, compared to their counterparts without a hospital” (Colla et al., 2016, p. 437). Hospitals might not be able to fully commit to reducing spending as they typically own many players of the health care provider team, such as laboratory services, rehab facilities etc. Targeting savings within the ACO might thereby reduce the revenue of their own holdings (Brennan, 2016). The fact that physician-led and integrated (physician-hospital partnerships) ACOs are more likely to achieve shared savings, supports this assumption (Muhlestein et al., 2016). Besides fewer bureaucratic layers, physicians might be able to negotiate better prices for external services and can generate savings by reducing emergency department and hospital admissions, which lower revenue for hospitals (Finnegan, 2017). Contrary to previous concerns that hospitals dominate ACO leadership because of their managerial strengths and resources, physicians have a major impact, leading 51% of ACOs alone and 33% jointly with hospitals (Colla et al., 2014, p. 694).

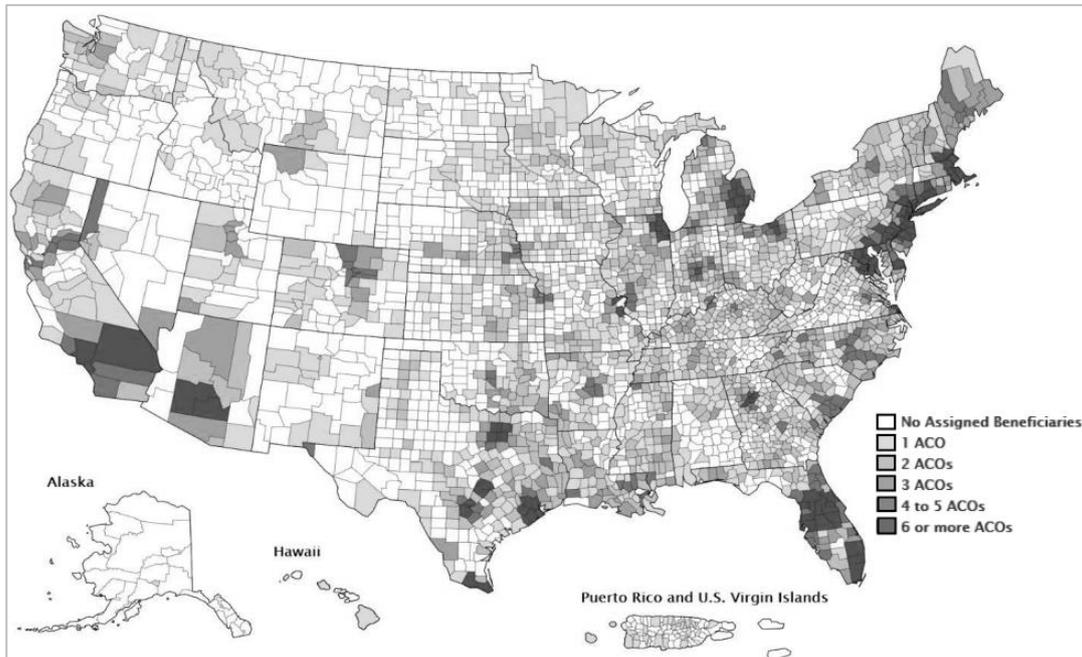
According to the 2015 Medicare report, the best-performing ACOs are not only physician-led but also older and smaller. Older ACOs are at an advantage since they have had more time to improve their health care delivery models and their internal structures. In pursuit of finding the best service provision model, smaller ACOs also succeed by adapting to changes quickly (Brennan, 2016). The smallest ACOs with about 5,600 patients generated savings of \$114.70 per beneficiary while the largest ACOs with about 46,600 patients generated losses of \$23.93 per capita (Muhlestein et al., 2016). Even if CMS was taking great efforts to encourage the creation of large, consolidated health systems to increase efficiency and functional integration in the past, the 2015 results suggest that it might be more important to emphasize the performance of smaller ACOs (Muhlestein et al., 2016).

4.3 Geographical Distribution

A key marker of where ACOs are forming is pre-existing provider integrations such as hospital systems and large groups of primary care physicians (Auerbach et al., 2013, pp. 1,786-1,787). As shown in Figure 4.2, most MSSP ACOs are located in metro areas like Atlanta, Chicago, Dallas, New York, Philadelphia and San Francisco, with 62% of ACOs found in high population density areas and only 12% in low population density areas (CMS, 2017c).

Interestingly, MSSP ACOs are not preferentially located in areas with high per capita Medicare spending or a high percentage of the area's Medicare population (CMS, 2017c). Even if it seems intuitive that high spending indicates unnecessary care and a great potential of future cost reduction, Auerbach et al. (2013) found out that a lack of key infrastructure and limited ability to integrate care characterize these regions. This might decrease strategic options for ACOs and therefore make these areas less preferred locations.

Figure 2: MSSP ACO Assigned Beneficiary Population by ACO by Country



Source: CMS, 2017c.

4.4 Prerequisites and Performance

Through today's expanding knowledge of healthcare costs, growing opportunities in big data, and experience in collaborating with other health care providers, ACOs have a higher likelihood to succeed compared to the managed care approaches of the 1990s. Patient freedom to use ACO services and select a provider independently reduces mistrust and dissatisfaction in the population (Emanuel, 2012, pp. 2,263-2,264). Expanded physician governance increases acceptance, as physicians prefer an ACO model that permits a greater level of independence and self-governance (Cimasi, 2013, p. 6). Additionally, providers do not have to take on as much financial risk as those in HMOs, which carried up to 100% of the risk, and can now use electronic health records to integrate care (Barnes et al., 2014, pp. 5-6). In the following, performance results of Medicare ACOs are focused because they are subject to a mandatory and independent evaluation through CMS. As there are no such regulations in private sector, results of commercial ACOs might be published incompletely or biased (Schulte et al., 2017, pp. 539-540).

According to CMS, Medicare ACOs generated more than \$466 million savings in 2015 and a total of \$1.29 billion from 2012 to 2015. Even if more ACOs received shared savings than in previous years, the number remains less than one third of all ACOs. To share in savings, ACOs not only have to satisfy minimum quality performance standards but also meet the MSR. While 8 of all 12 Pioneer ACOs generated savings, only six had sufficient savings to receive a portion of them (CMS, 2016c). Looking at individual

results, many ACOs missed their benchmarks by millions of dollars. An analysis by Introcaso and Berger (2015) revealed that the \$341 million in shared savings in 2014 were highly concentrated among the 86 most successful ACOs.

Generally, high-risk ACOs remain unpopular. In January 2017, the clear majority of 438 MSSP ACOs (91%) are participating in the one-sided model while 9% has chosen the two-sided model (CMS, 2017c). Summarizing the financial results of MSSP ACOs in 2015, more ACOs saved rather than lost relative to their benchmarks. While Medicare saved \$429 million, it paid out \$646 million in shared savings to MSSP ACOs. The net program losses of \$216 million are due to the high proportion of one-sided ACO models that receive shared savings but are not liable for losses (MedPac, 2016, p. 4). CMS uses pilot ACOs to evaluate how incentives can increase ACO enrollment and convince providers to take higher risks. Organizations identify lack of capital, absence of integrated IT systems, and deficiency of evidence-based treatment protocol data as the obstacles in forming ACOs (AMN Healthcare, 2011). Additionally, according to Hofler and Ortiz (2016), joining an ACO can raise costs for primary care providers up to 10%, meaning higher costs per patient visit during the first several years. Implementing essential ACO infrastructure, such as an electronic health record system and hiring the necessary administrative staff, can be very costly.

CMS describes a constant increase in the quality of services, reporting that ACOs improved on 84% of the quality measures. Significantly, all 12 Pioneer ACOs improved their scores from 2012 to 2015 by over 21 percentage points (CMS, 2016c). While CMS results suggest great success in Medicare ACOs, they only cover a small share of the American healthcare market and the results have a relatively small sample size. Even if a final evaluation about ACO success cannot be made at this point, the rising number of ACOs indicates widespread organizational faith in the program and significant saving potential.

5 Challenge Benchmarking: Unintended Incentives and CMS Response

The ACO benchmarking system was strongly criticized in years past. At the start of MSSP, every ACO can choose between the one- or two-sided risk model for its first three-year period (see Chapter 3.2). For that time, CMS sets a spending target for the ACO to receive shared savings. The benchmark is a weighted average of the healthcare costs for the attributed patients over the last three years, including annual adjustments for patient characteristics and anticipated growth in Medicare FFS expenditures (Harvey et al., 2014, p. 123). Assuming that more recent spending is more predictive of current ACO expenditures, the most recent year receives the highest weight. For example, for an ACO that started in 2016 spending for patients served in 2015 received a weight of 0.6 while spending in 2014 and 2013 received weights of 0.3 and 0.1, respectively (Doutven et al., 2015, p.143).

CMS uses the same method to recalculate the benchmark at the start of each new three-year contract term. This process implies that ACOs which still show high Medicare expenditures at the end of the first term will receive a higher benchmark and hold greater potential to generate savings in the second term. Similarly, ACOs that generated significant savings in the first term receive tightened benchmarks in the second. In order to receive shared savings, these well-performing organizations do not only have to maintain previous expenditure levels but also achieve additional cost reductions. This creates hardship on ACOs in this position, with fewer safe and effective saving opportunities remaining for an ACO to take in upcoming terms. By “placing an ACO in a race against itself” (Harvey et al., 2014, p. 122) and penalizing previous cost reductions with lower benchmarks for the next period instead of rewarding, the MSSP creates unintended incentives (Douven et al., 2015, pp. 143-144). Instead of reducing unnecessary medical services, ACOs may be constrained to increase spending, especially shortly before new benchmark calculations, to receive a better benchmark for the future. One estimate suggests that “for every dollar increase in spending in the last year before an ACO starts a new three-year contract, the ACO will get back between \$1.48 and \$1.90 during the contract period” (Douven et al., 2015, p. 143). This turns out to be profitable for ACOs but describes the opposite of the original target to reduce Medicare expenditures (Douven et al., 2015, pp. 143, 146).

In June 2016, CMS announced the *Final Medicare Shared Savings Program Rule* in order to “continue broad-based program participation and improve program function and transparency” (CMS, 2016b). In effect, CMS modified the process for resetting benchmarks for the second and subsequent agreement periods, beginning in 2017. Instead of using national Medicare spending data, CMS will now use regional spending growth trends to update ACO benchmarks while removing the adjustment that accounts for the savings generated in the period shortly before the new agreement. Because regional spending is determined by all providers in the area, this change limits the link between ACO performance and future benchmarks (Rose et al., 2016, p. 441). The re-based historical benchmark will now reflect ACO efficiency in relation to other regional providers (CMS, 2016b).

Although very promising, the use of regional data and the resulting convergence in benchmarks between ACOs with spending above and below local average FFS spending could cause less-well-performing ACOs to leave the program, as the new spending target falls below their reach (Rose et al., 2016, p. 441). To avoid this circumstance, CMS also announced a phased-in approach for ACOs with higher-than-average regional spending that applies a lower weight to the benchmark’s regional adjustment component in the beginning (CMS, 2016b).

Oppositely, with the new benchmark reflecting the average of high- and low-spending providers in the area, Rose et al. (2016) highlight, that well-performing ACOs with below-baseline spending may not be incentivized to further improve their performance. Recognizing that a shift to a two-sided model promises the greatest savings to these organizations, CMS provided the opportunity for one-sided ACOs to extend their initial benchmark contract for an additional year before the shift to the two-sided model (CMS, 2016b). Future evaluations will show if the adapted benchmark methodology can reach its goals of both strengthening provider satisfaction and increasing ACO participation rates.

6 ACOs - Opportunities and Limitations

Auerbach et al. (2013) describe ACOs as “the heart of the government’s efforts to transform healthcare delivery in the United States to a more coordinated, high-quality and efficient system” (Auerbach, 2013, p. 1,786) and underline that the cooperation and continued growth alongside private-sector ACOs has the potential to change the orientation of care systems in America. Trying to avoid circumstances which caused the managed care backlash, ACOs differ in several aspects from HMOs. Voluntary participation, less financial risk, more advanced outcome measurements, and knowledge of care management increases provider acceptance while more coordinated and better quality care attracts and retains patients. Nevertheless, ACOs might also face serious problems, as they gradually take on greater financial risk that could negatively affect the quality of care through rationing, denial of care, or ACO organizational instability. Additionally, consolidation of providers could lead to expanded market power and monopolization, resulting in higher prices (Barnes et al., 2014, pp. 5-6). To prevent future setbacks, CMS strives to improve the position of ACOs through policies such as adapting the benchmarking methodology to accommodate variably performing organizations.

Even as the number of ACOs increases and innovative ACO models raise international awareness of alternative payment models, Barnes et al. (2014) underline the limited impact of ACOs on health expenditures. They may lower costs marginally, but overall, expenditures will remain high unless the demand for acute medical care and the price of care decrease. Thus, socio-economic factors like food supply, unemployment and environment have to be simultaneously targeted as the origin of medical demand (Barnes et al., 2014, p. 7).

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