

EXECUTIVE SUMMARY

# Advanced Primary Care: A Key Contributor to Successful ACOs

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PREPARED BY

**Patient-Centered  
Primary Care**  
COLLABORATIVE



ROBERT  
GRAHAM  
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## About the Patient-Centered Primary Care Collaborative

Founded in 2006, the Patient-Centered Primary Care Collaborative (PCPCC) is a not-for-profit multi-stakeholder membership organization dedicated to advancing an effective and efficient health system built on a strong foundation of primary care and the patient-centered medical home. Representing a broad group of public and private organizations, PCPCC's mission is to unify and engage diverse stakeholders in promoting policies and sharing best practices that support growth of high-performing primary care and achieve the "Quadruple Aim": better care, better health, lower costs, and greater joy for clinicians and staff in delivery of care.

PCPCC is and will position itself as an advocacy organization—a coalition that serves as a "driver of change," educating and advocating for ideas, concepts, policies, and programs that advance the goals of high-performing primary care as the foundation of our health care system.

[www.pcpcc.org](http://www.pcpcc.org)

## About the Robert Graham Center

The Robert Graham Center aims to improve individual and population healthcare delivery through the generation or synthesis of evidence that brings a family medicine and primary care perspective to health policy deliberations from the local to international levels.

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# Executive Summary

Two recent delivery and payment innovations—the patient-centered medical home (PCMH) and accountable care organizations (ACOs)—each promise to help achieve the Triple Aim of improved population health, lower costs, and better patient experiences in health care.<sup>1,2</sup> Though some early proponents imagined the medical home model nested within a broader medical neighborhood and facilitated through ACOs, these two innovations were birthed via separate movements and tested in public and private pilots in relative isolation over approximately the last decade.<sup>2,3</sup>

The PCMH effort is the most widely disseminated example of advanced primary care, a set of models of primary care practice that broaden its scope and responsibilities. This effort has sought to transform primary care by defining a set of structures and processes to produce a greater focus on patient-centered, coordinated, team-based care. Over the last decade, the PCMH movement has become widespread, with nearly 500 public and private sector PCMH initiatives being tracked across the United States.<sup>4</sup> In late 2017, a survey conducted by the American Academy of Family Physicians (AAFP) and Humana found that nearly half of family physicians (49%) are in a practice that is recognized as a medical home. Another 5% are in a practice that has submitted an application for medical home status.<sup>5</sup> Previous Patient-Centered Primary Care Collaborative (PCPCC) evidence summaries have revealed positive effects of the PCMH on health care cost, quality, and utilization that increased over time, though not always uniformly and, in some cases, not of significant magnitude.<sup>6</sup> Where results were mixed, some observers noted expected returns on overall cost and quality from PCMH transformation were unrealistic,

given the isolation of these interventions to primary care and the lack of buy-in from a broader medical neighborhood of providers in other health care settings, such as specialists and hospital-based providers.

Accountable care organizations hold groups of providers across different care settings accountable for the cost and quality of care provided to a defined cohort of patients, thus giving a range of providers a shared incentive to work together to better manage their mutual patients. By early 2017, some 923 privately and publicly contracted ACOs across the country were serving more than 32 million individuals, approximately 10% of the U.S. population.<sup>7</sup> As with the PCMH, ACO performance has varied. The Medicare Shared Savings Program (MSSP), the largest of the ACO pilots, has shown quality improvements but not overall net savings for Medicare, although a minority of MSSP ACOs have generated such savings.

Typically, ACOs focus on population health management and the reduction of acute and post-acute care cost drivers, which would seem to depend on foundational elements of effective primary care, such as coordinated, comprehensive, patient-centered care.<sup>3,8</sup> Given this theoretical alignment between advanced primary care and accountable care with respect to performance measures and related incentives, this year's PCPCC evidence review attempts to answer the following question: *What is the role, if any, of advanced primary care models like the PCMH in the success or failure of ACOs?*

Unlike previous PCPCC evidence reviews, this report uses mixed research methods to address this question. As it has in the past, our approach includes a synthesis of peer-reviewed literature, but this year, we have added a thematic analysis of comments made by convened experts on the subject

(*Supplement 1*) and conducted the first use of original secondary data analyses in the PCPCC evidence report series. Our quantitative analysis, explained in detail in the report, examines the relationship between successful ACOs and the presence of recognized PCMHs.

## LITERATURE REVIEW

Section 1 summarizes evidence on the general characteristics of ACOs that contribute to shared savings, improved quality, and/or more appropriate utilization of health care services. Our search identified 186 potential studies. After review for relevance to the topic of characteristics of successful ACOs, only 15 of them were included in this report (see *Box 1 for full details*). A thematic analysis of the 15 journal articles found that high performance in the following six domains was important to the success of an ACO:

1. Leadership and Culture
2. Prior Experience
3. Health Information Technology
4. Care Management Strategies
5. Organizational and Environmental Factors
6. Incentive and Payer Alignment

Notably, the characteristics that lead to the success of ACOs are also central to the success of advanced primary care models such as the PCMH. For example, many successful ACOs rely on good care coordination using care managers; robust and timely electronic health record (EHR) information; increased access to care through means such as patient web portals and expanded office hours; and a focus on safety and quality improvement (*Figure 1*).

Section 2 summarizes evidence on the cost, quality, and utilization outcomes of ACOs that have a specifically articulated advanced primary care focus. With this literature review, our initial search identified 261 peer-reviewed articles, but only 10 discussed cost, quality, or utilization outcomes and made

some mention of the impact of primary care (*Figure 2*). While still lacking in depth and populated principally with studies of individual ACOs, this literature suggested that ACOs with a central focus on, or with leadership from, advanced primary care teams experienced positive results in terms of cost, quality, and utilization.

- In terms of cost outcomes, findings were generally positive. Four reported cost savings,<sup>9-11,13</sup> one reported negative cost outcomes,<sup>12</sup> and one reported no difference in cost (*Figure 3*).<sup>14</sup>
- Of the six articles that commented on quality outcomes, all reported positive findings.<sup>10,11,13-16</sup> However, one study showed that there was not a uniform improvement for all quality measures studied,<sup>11</sup> and another showed that quality improvements eventually leveled off.<sup>15</sup>
- In terms of utilization, we were specifically interested in primary care utilization, emergency department (ED) utilization, and inpatient hospitalizations. We considered a study “positive” if it showed an increase in primary care utilization, a decrease in ED utilization, and/or a decrease in inpatient utilization. Three studies showed positive results in terms of utilization,<sup>11,15,16</sup> two were mixed,<sup>17,15</sup> and one showed negative results.<sup>12</sup>

Notably, only one of the studies we looked at compared practices within the ACO that were PCMH certified to practices within the ACO that were not. This study showed positive quality outcomes for ACOs that included PCMH practices but did not compare cost or utilization outcomes.<sup>16</sup> The other studies either used no comparison group,<sup>17</sup> used a non-ACO comparison group with similar characteristics,<sup>13,9</sup> conducted a cross sectional study of all Medicare ACOs<sup>12</sup> or did a pre-post analysis after transforming into an ACO.<sup>10,14,15,11,46</sup> In addition to the small number of studies in total, the possibility of publication bias limits our ability to draw any strong conclusions about the impact

of advanced primary care on ACOs via a literature review. This expected dearth of evidence exploring the intersection of the PCMH and ACOs led us to pursue a quantitative analysis.

## QUANTITATIVE ANALYSIS FINDINGS

In Section 3, we report on original analyses of the association between PCMH and ACO outcomes, using NCQA recognition of PCMH practices and 2014 Medicare Shared Savings Program (MSSP) data to stratify ACOs by the level of PCMH penetration (defined as the percentage of ACO primary care physicians (PCPs) with PCMH experience). Many recognition programs exist for PCMH accreditation in addition to NCQA's, including the Accreditation Association for Ambulatory Health Care (AAAHC) Medical Home On-site Certification, the Joint Commission (TJC) Designation for Your Primary Care Home and URAC Patient-Centered Medical Home Accreditation.<sup>16</sup> States such as Oregon and New York, along with others, have established their own criteria for PCMH. Yet NCQA has the highest penetration rate with 24% of PCPs practicing in an NCQA certified PCMH.<sup>48</sup> Therefore, we chose to use these data as a proxy for PCMH status.

In our quantitative analysis, we used NCQA data to identify PCMH PCPs practicing in 2014 MSSP ACOs. To understand the potential association between PCMH and cost and quality outcomes among ACOs, we categorized ACOs into quartiles by the share of PCPs with a PCMH experience. The lowest quartile of ACOs had no PCMH PCPs; the highest quartile had 43% PCMH PCPs. In terms of cost, when adjusting for ACO organization and beneficiary characteristics, we found that having PCMH PCPs was associated with higher savings among ACOs in the 2014 MSSP. Compared to the lowest quartile for PCMH PCP share, ACOs in the second lowest quartile on

average had a 1.9 percentage point higher savings rate (p-value 0.03). Though lacking in statistical significance, the savings rates of ACOs in the second highest and the highest quartiles for PCMH PCP share were on average 1.3 and 1.2 percentage points, respectively, higher relative to those in the lowest quartile. The average savings rate was 0.6% for our ACO sample, suggesting that the magnitudes of the cost savings for ACOs with PCMH PCPs were sizeable.

With respect to quality, ACOs in the highest quartile of PCMH PCP share performed better than those in the lowest quartile. In multivariate regression, having a higher share of PCMH PCPs was associated with higher health promotion and higher health status scores (*Table 3*). The preventive service scores were also generally higher: having a higher share of PCMH PCPs was associated with higher pneumococcal vaccination and depression screening scores. ACOs in the higher quartiles had better tobacco screening and cessation intervention scores than the lowest quartile group, especially the second lowest quartile. ACOs in the higher quartile groups also had superior chronic disease management, including higher diabetic and coronary artery disease composite scores.

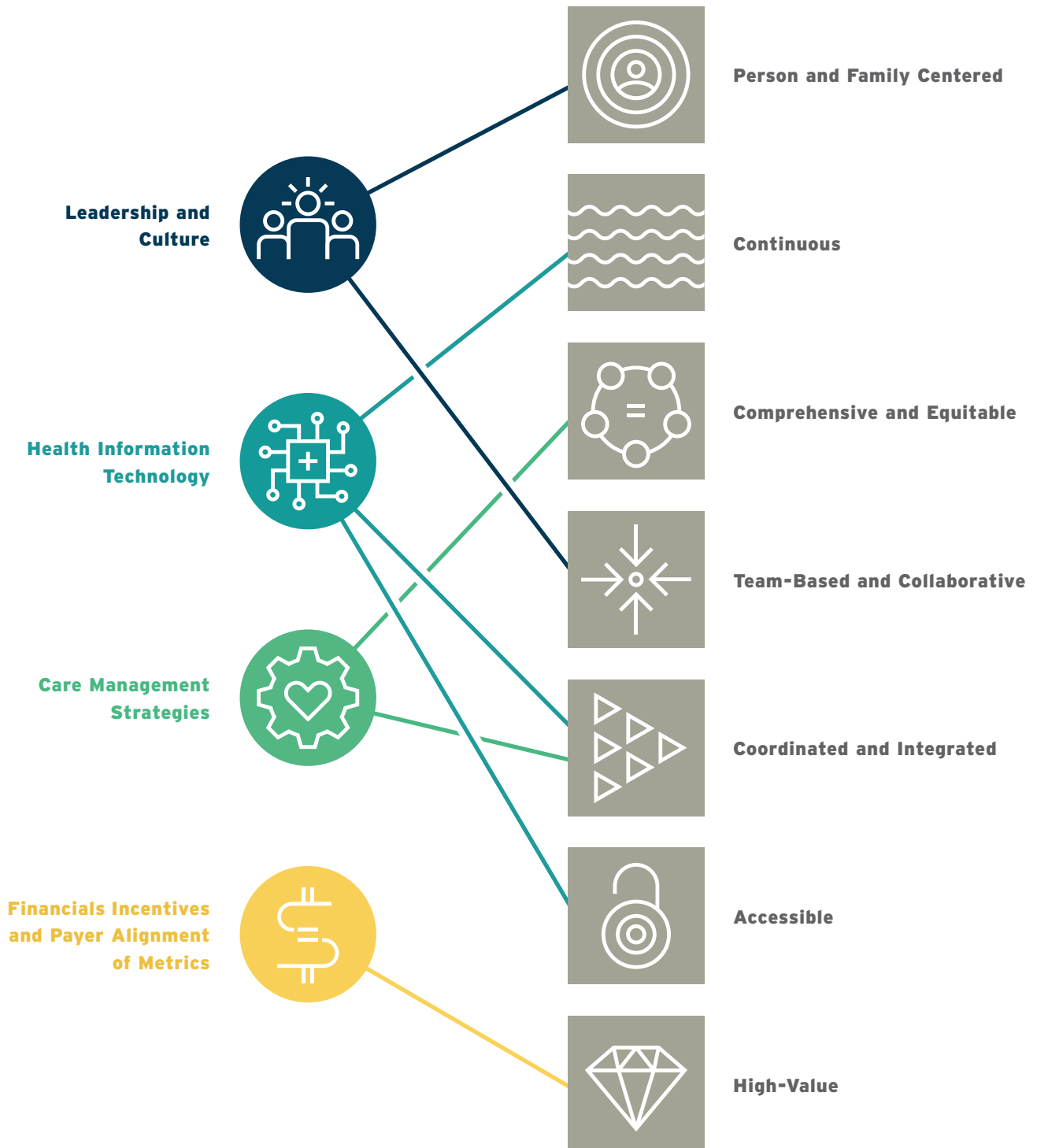
Overall, our quantitative analysis demonstrated:

1. PCMH PCP share in ACOs varied from 0 percent in the lowest quartile to an average of 43 percent in the highest. ACOs with a higher PCMH PCP share on average had lower historical benchmarks than the lowest quartile. ACO's historical benchmark reflected its recent 3-year average Medicare (Part A and Part B) spending of its beneficiaries prior to joining the program. While this study was not designed to explain this finding, one explanation is that ACOs with more PCMH PCPs are composed of historically efficient practices.

**FIGURE 1**  
**Characteristics of Successful ACOs Mapped to the Shared Principles**

**ACO Characteristics**

**Shared Principles of Primary Care**



2. After adjusting for ACO organization and beneficiary characteristics, ACOs with a positive (non-zero) PCMH PCP share were more likely to generate savings, although the relationship was not proportional, meaning that having a higher PCMH PCP share was not associated with more savings. The 1.9 percentage point average difference in the savings rate between the second and the first quartile for PCMH PCP share is sizable given that the mean savings rate among ACOs was 0.6%.

3. After adjusting for ACO organization and beneficiary characteristics, ACOs with a higher PCMH PCP share demonstrated higher quality as well, specifically in health promotion scores, health status scores, preventive service scores and chronic disease management scores.

In summary, a review of published evidence, expert opinions, and secondary data analysis suggests the interdependence of advanced primary care models (such as

the PCMH) and ACOs in achieving improved population health, lower costs, and better patient experiences in health care. Much work still remains to gather data and understand the methods that are best suited to study the relationship between advanced primary care models and ACOs. Given these results and the desire of policy makers and accountable health system leaders to derive increasingly better results from delivery and payment transformation, policies that encourage a strong primary care orientation for ACOs should be considered. This orientation could include PCMHs and policies that promote the six characteristics identified in the literature review. Simultaneously, PCMHs should consider the broader ecosystem in which they practice and consider how to align with ACOs that have a primary care orientation. Through this alignment, ACOs and PCMHs have the potential to deliver on the Triple Aim and provide a higher quality of care for their patient populations.

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