EXECUTIVE SUMMARY

The Impact of Primary Care Practice Transformation on Cost, Quality, and Utilization

A SYSTEMATIC REVIEW OF RESEARCH PUBLISHED IN 2016

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PREPARED BY

Patient-Centered Primary Care COLLABORATIVE

ROBERT GRAHAM CENTER

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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

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.

www.graham-center.org

About the Milbank Memorial Fund

The Milbank Memorial Fund is an endowed operating foundation that works to improve the health of populations by connecting leaders and decision makers with the best available evidence and experience. Founded in 1905, the Fund engages in nonpartisan analysis, collaboration, and communication on significant issues in health policy. It does this work by publishing high-quality, evidence-based reports, books, and *The Milbank Quarterly*, a peer-reviewed journal of population health and health policy; convening state health policy decision makers on issues they identify as important to population health; and building communities of health policymakers to enhance their effectiveness.

www.milbank.org

Executive Summary

In the decade since the "Joint Principles of the Patient-Centered Medical Home"[2] were published, it has become widely accepted that primary care practice transformation and delivery are essential to achieving the nation's Quadruple Aim - improving patient and provider experience and the health of the population while decreasing cost. Over that same time span, evidence that lights the path towards transformation, of the sort best suited to accomplishing these aims and realizing high-performing primary care, continues to emerge.

As this year's evidence report reaffirms, the Patient-Centered Medical Home (PCMH) has demonstrated improved outcomes in terms of quality, cost and utilization, but not uniformly. It also confirms important lessons for payers and policymakers: like any form of evolution, meaningful transformation takes time, is dynamic in nature, and displays considerable variations in quality, cost and utilization outcomes. The evidence also reveals some concrete modifications to the initial model, learned from best practice PCMHs over the past 10 years, which have improved primary care and its outcomes. For example, it is quite clear that team-based interventions, including case management, and having a usual source of care have positively impacted the patient experience. That said, there is no single 'implementation manual' that meets the needs of all.

CHANGES TO THE REPORT

This update to the Patient-Centered Primary Care Collaborative (PCPCC) annual report, led by a new team of investigators, remains true to its predecessors in aims and spirit, with several differences worth noting. **Its PCPCC, Milbank Memorial Fund, and Robert Graham Center planners declared early an intent to broaden the gaze of the review to capture any evidence relevant to 'high performing primary care,' not merely the PCMH,** to broaden the bibliometric data sources reviewed, and to apply rigorous methods of both peer-reviewed and grey literature systematic review. An agreed upon standardized definition of high performing primary care remains a work in progress. That said, a coalition of about 300 leaders across diverse stakeholder groups came together to create the 2017 Shared Principles of Primary Care. These Shared Principles, to be released in October 2017, define the most important features of advanced primary care. Some of the seven Shared Principles are already evident in leading practices across the country: the full collection of Shared Principles represent an aspirational goal for primary care.

The report takes a featured look at Blue Cross Blue Shield of Michigan, which leads one of the oldest PCMH programs, now in its eighth year with seven years of data. Important to note, **the Michigan experience is one of the largest, with 4,534 primary care doctors at 1,638 practices and with published peer-reviewed reports. The statewide transformation of care has resulted in a 15% decrease in adult Emergency Department (ED) visits and a 21% decrease in adult ambulatory care sensitive inpatient stays.**[3] That these returns contrast considerably with those reported in the past year from near-neighbor Pennsylvania reinforces the notion that primary care transformation efforts can vary significantly not only in approach, but in outcomes.

OUR RESEARCH APPROACH

To broadly assess the landscape, we systematically reviewed evidence from the last year of peer-reviewed and grey

The PCMH model has evolved and new models of high performing primary care are emerging. This dynamism is exciting but assessment and scaling is challenging.

DIFFERENCES IN COST

Take home: In general, the PCMH showed a decrease in overall cost, with a more positive trend for more mature PCMHs and for those patients with more complex medical conditions.

literature that analyzed value of care delivered in terms of cost, quality and utilization of purported high-performing primary care practices across the nation. We divided our peer-reviewed analysis into subgroups of studies that looked at PCMH outcomes and those that looked at practices who attempted to transform the delivery of care in novel ways, but who weren't necessarily a PCMH. For each group, we studied the effects on quality, cost and utilization. **A total of 45 reports from the peer-reviewed literature were assessed. We then turned our attention to outcomes from CMS initiative reports and independent state evaluations, once again reporting on the effects on cost, quality and utilization.**

DIFFERENCES IN QUALITY

Take home: Effects on quality are mixed but, excluding one outlier, were either positively correlated with PCMH or showed no difference in quality measures from control. Like the data for utilization, heterogeneity in study design and measures studied could account for these differences. All the studies that examined the patient experience showed positive outcomes.

HIGHER QUALITY AT LOWER COST

That systems and organizations built around a core primary care function can deliver higher quality, lower cost and more equitable care is well-established, not only by Barbara Starfield,[4] a seminal figure in health services research, but in previous findings from other countries and evaluations of microsystem transformation within the U.S.[5,6,7,8] **The challenge is one of scaling the most effective processes, principles and cultures of transformation.** In that context, we placed particular emphasis on findings from two Medicare innovation programs: the Comprehensive Primary Care Initiative (CPCI) and the Multi-Payer Advanced Primary Care Practice (MAPCP) transformation.

Over the past year, peer-reviewed studies on the impact of primary care practice transformation on cost generally supported the idea that **becoming or advancing one's status as a PCMH was associated with decreases in overall cost.** This association was stronger for mature PCMHs and for those caring for patients with more complex medical conditions. Interestingly, the CPCI reports showed less favorable cost outcomes. Although the average per beneficiary per month (PBPM) Medicare expenditures were lower for CPC attributed patients as opposed to controls, the savings were not enough to offset the care management fees paid PBPM. When looking at individual states, such as Oregon and Colorado, cost savings were seen, but it is difficult to parse out the effects of CPCI from other state initiatives and grants that were running concurrently. One would expect that if costs decreased, utilization outcomes should have also been more homogenously favorable. This discrepancy could be attributed to the varying costs for different measures of utilization. For example, the state evaluators from Colorado commented that overall costs decreased despite mixed utilization results because inpatient hospitalizations, presumably the driver of most healthcare costs in their system, decreased.[9]

In the context of efforts to leverage primary care to shift the overall health system from volume towards value, **we discovered some positive quality results across nationwide evaluations but not in every instance.** State-specific data showed either a trend towards a positive effect on outcomes, or no effect on quality outcomes. In the peer-reviewed literature, the positive quality outcomes varied greatly as few studies reported on the same quality measures in the same way. This may have less to do with flaws in study design or validity, and more to do with a need for more harmonized measures in general. Interestingly, all reports that commented on the patient experience showed positive quality results. Overall, studies this year showed us that the longer a practice had been transformed, and the higher the risk of the patient pool in terms of comorbid conditions, the more significant the positive effect of practice transformation.

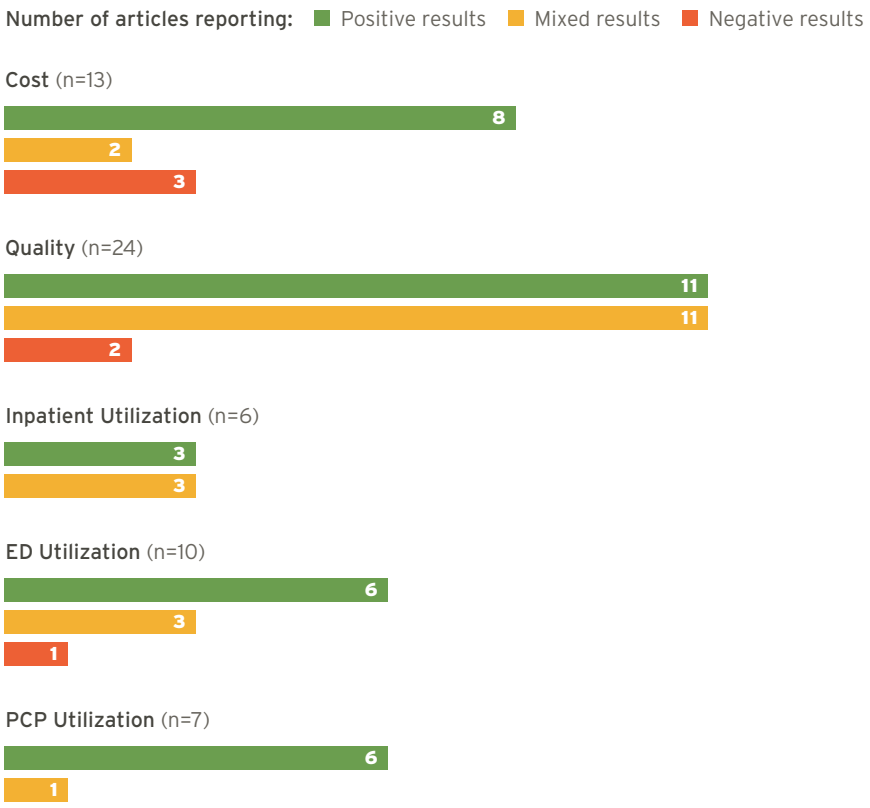
We found no studies this year that reported specifically on the impact of the PCMH on provider satisfaction, yet two systematic

reviews examined interventions to reduce physician burnout in general. These studies showed that organizational changes aimed at fostering a culture of teamwork, a key component of the PCMH, could lead to reductions in physician burnout.[73,74] Previous studies have also shown that other features of advanced primary care practices such as scribes and enhanced teams also contribute to patient satisfaction and efficiency.[75,76] A deeper dive into the effect of the PCMH on provider satisfaction would be an important addition to next year's report as we move towards the Quadruple Aim of providing high quality care and increasing patient and provider satisfaction while containing costs.

When looking at utilization outcomes, the peer-reviewed studies overall showed an increase in PCP use for patients enrolled in the PCMH when compared to those who are not. The data are inconsistent on whether this increase in PCP use leads to a concomitant decrease in specialty services, ER utilization, or hospitalizations for PCMH attributed patients. The CPCI and MAPCP reports also report mixed outcomes on appropriate utilization of services, with some states showing more favorable outcomes than others. The heterogeneity of study design, the differences in populations studied, as well as the varying implementation of PCMH (both in terms of actual practices and maturity) could explain the inconsistent results.

This year, many studies started to investigate the impact of primary care enhancements on previously transformed practices. Many of these studies focused on the impact of adding team members such as case managers or pharmacists to their already-transformed practices. These studies showed promising results, and **demonstrated that we are exiting an era of evaluating the impact of the PCMH into an era of continuing evolution of high performing primary care.**

Summary of Outcomes: Peer Reviewed Articles



HIGHLIGHTS FROM THIS EVIDENCE REVIEW

- New this year, we attempted to include quality outcomes in addition to cost and utilization. Peer-reviewed, CMS-initiative and state-specific data showed either a trend towards a positive effect on quality, or no impact on quality, though few results were statistically significant. The positive outcomes varied greatly as few studies reported on the same quality measures in the same way. This may have less to do with flaws in study design or validity and more to do with a need for more harmonized outcomes measures, in general.
- All studies that reported on patient satisfaction showed positive results.

Implementation of primary care reform models differ; there is no one size fits all.

DIFFERENCES IN UTILIZATION

Take home: Overall, data on utilization of services is mixed, but trends towards positive findings. Studies tend to show an increase in PCP use but the data is inconsistent on whether this increase in PCP use leads to a concomitant change in specialty services, ER utilization, or hospitalizations.

- Team-based interventions, including case management, and having a usual source of care have positively impacted the patient experience.

- Overall, analysis of the studies revealed that the longer a practice had been transformed, and the higher the risk of the patient pool in terms of comorbid conditions, the more significant the positive effect of practice transformation, especially in terms of cost savings. While nationwide evaluations of CPCI and MAPCP showed less significant impacts of cost, evaluations of state-specific programs did show cost savings. CPCI and MAPCP participants noted that, in general, without payments from the federal government, cost savings would not be sufficient to cover the costs associated with transformation and continued implementation of their programs. Few peer-reviewed studies that showed cost savings commented on the cost of transformation or whether they took this into consideration in their analysis.

- Utilization outcomes were mixed. While most studies and state reports did show an increase in outpatient visits, this didn't uniformly result in a concomitant decrease in ER visits or inpatient stays.

- A best practice PCMH program, Blue Cross Blue Shield of Michigan, is featured. See Figure 1. Blue Cross Blue Shield of Michigan leads one of the oldest PCMH programs, now in its eighth year with seven years of data. Important to note, the Michigan experience is also one of the largest, with 4,534 primary care doctors at 1,638 practices. The statewide transformation of care has resulted in a 15% decrease in adult ED visits and a 21% decrease in adult ambulatory care sensitive inpatient stays.[2]

FIGURE 1

Program Spotlight: Blue Cross Blue Shield of Michigan

Blue Cross Blue Shield of Michigan has the largest and longest running Patient Centered Medical Home. A key to their success, as outlined here, has been using lessons learned from other advanced primary practices[71] as the building blocks[77] for their practice transformation.

LESSON #1

Nurture effective and stable leadership

The Physician Group Incentive Program (PGIP) has catalyzed the formation of over 40 Physician Organizations (POs) that have led and supported practices in revolutionizing the delivery of health care in Michigan.

LESSON #2

Gather together (get everyone around the table)

BCBSM's facilitation of quarterly meetings with all PO leaders (approximately 350) has led to cross-collaboration and synergistic partnerships among providers across the state, as well as the formation of a Primary Care Leadership Committee that provides review and guidance on PGIP policies and programs.

LESSON #3

Spark physician enthusiasm

"Relentless incrementalism" is a PGIP motto, and PGIP initiatives are designed to support and reward step-by-step progress through the celebration of provider and program best practices at quarterly meetings.

LESSON #4

Demand federal commitment, action and coordination

PGIP medical leaders have testified before Congress regarding the value-based reimbursement model and the importance of the federal government supporting and recognizing regional practice transformation efforts.

LESSON #5

Offer meaningful financial support

The PGIP program has used a combination of incentive reward payments to POs and value-based reimbursement for individual physicians to ensure providers have the financial support needed to succeed.

LESSON #6

Encourage multi-payer participation

The PGIP program provided the foundation for the five year Michigan Multi-Payer Advanced Primary Care Practice Demonstration program.

LESSON #7

Offer technical assistance and collaborative learning

PGIP provides practices with technical assistance and opportunities for collaborative learning by hosting learning collaboratives, providing education and guidance and funding a Care Management Resource Center.

LESSON #8

Embrace team-based approaches that extend beyond the practice

POs and practices deliver multi-disciplinary team-based care through access to a Provider-Delivered Care Management (PDCM) program, behavioral health providers and embedded pharmacist care managers.

LESSON #9

Establish realistic time tables for evaluation

Underlying the PGIP philosophy of relentless incrementalism is the understanding that practice transformation is a long-term process, and programs must be allowed to stabilize and mature before results are evaluated.

LESSON #10

Obtain timely, accessible and useful data

The PGIP PCMH/PCMH-N program provides financial support to POs and practices to build the capacity for population management through use of integrated patient registries and performance reporting.

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