



PERSPECTIVES IN PRIMARY CARE

June 2016

**Impact of Patient-
Centered Medical
Homes on Cost and
Quality of Health Care:
Michigan's Experience**



About the Michigan Primary Care Consortium (MPCC)

Founded in 2006, the MPCC is a not-for-profit membership organization committed to advancing person-centered primary care as the foundation for a more fully integrated health care system. MPCC members include the following types of organizations: physician organizations, payers, employers, professional associations, academic institutions, community organizations, business and industry, organized labor and research organizations as well as state and local government. MPCC helps its members deliver more effective and efficient primary care by facilitating dialogue across its member organizations and sharing best practices. For more information or to become a member, visit www.mipcc.org.

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INTRODUCTION

The United States health care system is undergoing a major transformation in response to concerns that in its current form the system is unsustainable. Health care costs continue to rise, health care is often fragmented and quality is frequently not reflected in patient care outcomes. There is a demand for increased transparency and a need for improved integration across and between health care systems. Patients expect a positive health care experience at a reasonable cost. Primary care providers are seeking ways to improve the health of their patients while managing their costs. Employers, as purchasers of health insurance, are seeking affordable health care for their employees and families.

The Institute for Healthcare Improvement (IHI) developed a framework identifying three strategies that need to be addressed in order to build a sustainable health care system.

- Improving the patient experience of care, which includes quality and satisfaction
- Improving the health of populations
- Reducing the per capita cost of health care.¹

Redesigning primary care services and structures was one of the strategies that IHI believed would lead to improvement.¹ The Patient-Centered Medical Home (PCMH) model emerged as one of the approaches that experts believed would lead to improvements in quality, experience and cost.² As noted in *Michigan Paving the Way for Medical Homes*, the first in a series of briefings on primary care issued by the Michigan Primary Care Consortium, early data suggested that the PCMH model did have a positive effect on the cost and quality of health care services.³ As medical homes mature there is growing evidence that the PCMH model leads to a reduction in health care costs, unnecessary utilization of services, improvements in population health and preventive services, increased access to primary care and growing satisfaction among patients and clinicians.^{4,5} A study by Khanna et al showed that quality improvement and cost reduction are often not evident until the 3rd year of PCMH recognition.⁶

This paper will explore further the effect the PCMH model has had on cost and quality in physician organizations and independent practices in Michigan as well as the impact primary care system transformation has had on employers.

PATIENT-CENTERED MEDICAL HOMES ARE REDUCING COSTS AND UTILIZATION

The Patient-Centered Primary Care Collaborative (PCPCC) annually publishes a review of various PCMH initiatives determining whether the evidence demonstrates that the PCMH model has an impact on health care cost and quality. The most recent report reviewed 30 publications published between October 2014 and November 2015. Publications included peer-reviewed studies, state government evaluations, industry reports, and independent federal program evaluations.⁷

The report concludes that the PCMH model does lead to reductions in health care costs and/or unnecessary utilization with the most significant improvements demonstrated in more mature medical homes. Organizations participating in multi-payer collaboratives with specific incentives or performance measures linked to quality, utilization, patient engagement or cost savings were also found to have measurable improvements in cost and utilization outcomes. Highlights from the report include:

- 91% of the studies reporting on cost measures found reductions in one or more measures and 92% reporting on utilization measures found reductions in one or more utilization measures.
- Over half of the peer-reviewed studies associated PCMH implementation with general improvements in cost and utilization measures. Studies from Blue Cross Blue Shield of

Michigan identified total cost of care savings, with one study reporting a 4.4 % lower cost among adults.

- 14 peer-reviewed studies reported on utilization measures with 13 showing favorable reductions in one or more measures. Utilization measures included emergency department use, hospitalizations, and specialist visits. A few studies also reported reductions in primary care visits, possibly due to increased use of technology or more systematic care planning.
- Blue Cross Blue Shield of Michigan, which has one of the largest and longest-running PCMH programs in the country, estimated \$512 million in savings over six years by aligning providers and payers and using its own regional peer-reviewed accreditation program.
- Only two of eight states participating in the federal Multi-Payer Advanced Primary Care Practice Demonstration (Michigan and Vermont) were found to have achieved net cost savings. Both states have programs that are developmentally more mature.⁷

A recent study conducted at Walter Reed PCMH in Bethesda, Maryland, looked at the impact of the PCMH model on utilization and cost of health care, access to care and quality of care. Researchers were interested in looking at whether the results were different for patients with chronic conditions compared to those without chronic conditions. The study found that costs were 11% lower for those with chronic conditions compared to 7% lower for those without. This suggests that the greatest potential for early gains would be achieved by focusing first on those with chronic conditions. The study also concluded that the PCMH model improved access and quality while reducing costs for patients with and without chronic conditions, although the significance was generally greater for those with chronic conditions. The authors note that “The true test for PCMH success is whether it will have an impact on the rate at which patients develop chronic conditions and not just on treating chronic conditions in a more cost-effective way.”⁸

PATIENT-CENTERED MEDICAL HOMES BENEFIT EMPLOYERS

Health care costs drive employer decisions about investing in employee health care benefits. Employers are increasingly interested in identifying ways to reduce their costs while continuing to provide employees with access to quality health care. In 2015 more than 90% of PCMH’s evaluating outcomes related to cost of care or utilization of acute care services found improvements, which should be of interest to employers.⁷ Blue Cross Blue Shield of Michigan reported that practices with full implementation of the PCMH model achieved monthly savings of \$26.37 per member, which translates into reduced employer health care costs.^{9,10} It has also been reported that patients in a PCMH are more productive and more likely to stay on the job which benefits employers.¹¹ There is a clear need for employers to engage and collaborate with health care systems to improve outcomes and reduce health care expenditures.

While not specifically citing PCMH as the reason for exploring new relationships with provider networks, Hospitals & Health Networks reported in a December 10, 2015 article, “Will Boeing Change Health Care,” that large employers are looking to form closer relationships with large provider networks as they look for ways to reduce employee health costs. By contracting directly with one another, employers and PCMH providers hope to achieve benefits in terms of cost, quality, and utilization. Boeing participated in a PCMH program with Regence Blue Shield and experienced a 20% lower health care cost as a result of the partnership.¹²

The 2016 National Business Group on Health® noted in their recent Issue Brief, “The Primary Care Imperative: New Evidence Shows Importance of Investment in Patient-Centered Medical Homes,” that while employer engagement is still relatively low, employers are interested in helping to transform the

health care delivery system. Data shows that while only 4% of large employers consider delivery models such as the PCMH as an effective strategy for controlling costs, more employers are thinking about how to incorporate new delivery models into their existing health plans.¹⁰ The report identifies a number of ways employers can promote PCMHs, such as direct contracting with PCMH providers, joining multi-payer PCMH collaboratives and contracting with health plans that identify PCMHs that are improving outcomes and costs.¹³

PATIENT-CENTERED MEDICAL HOMES IN MICHIGAN IMPROVE OUTCOMES

Michigan provider organizations consistently identify effective use of data, patient engagement and teamwork as key to achieving improvements in the cost and quality of health care.

Establishing baseline data that looks at patient experience, quality and utilization performance and then intentionally focusing improvement efforts in each of these areas contributes to improved outcomes.¹⁴ In order to make positive changes in their practices, providers need to be able to effectively use data. As noted by numerous provider organizations, while there is no shortage of data available to providers, understanding what data elements are important and formatting the information in a way that providers find meaningful can be a challenge.^{15, 16}

Affinia Health Network Lakeshore tracks a variety of utilization measures to identify opportunities to improve access to appropriate care across the continuum, such as emergency department utilization rates, inpatient admission and readmission rates, and pharmacy utilization rates. Data sources may include patient experience surveys, physician engagement surveys, payer and their own population health quality metrics, and cost and utilization data from patient claims data for payers they contract with. They are able to demonstrate current provider, office practice, and network performance on key measures to drive and track improvement and incorporate the data into clinical integration plans for each provider practice. Lakeshore has utilized their Wellcentive Registry tool since 2004 and has over 250,000 patients in the registry with outcomes that go back over a decade.¹⁴

Organizations as well as individual providers are measured against and reimbursed for quality outcomes, which requires that providers have access to data to assist them in quality improvement initiatives. Northern Physicians Organization (NPO) developed a community registry that provides a mechanism for providers to constantly monitor their own progress and to understand how to manage individual practices and processes.¹⁵ Practice coaches play a significant role in assuring that data is used effectively to drive improvements in cost, quality and utilization. NPO practice coaches work with individuals to convey the importance of the community registry and to reinforce the need for providers to enter information in the registry.¹⁵ Integrated Health Partners, which focuses primarily on HEDIS measures, utilizes practice coaches to bring data to individual practices and review with staff and providers.¹⁷

Internal Medicine Associates, ProMedica Physician Group, asks each staff member to assume responsibility for a specific HEDIS measure. During annual reviews each staff member has an opportunity to share how they have promoted the HEDIS measure and how well they are doing overall.¹⁶ PCMH practices at Hayes Green Beach Health designate a medical assistant as the quality specialist to help assure they meet quality measures. The quality specialist is responsible for calling patients and reminding them of appointments and provides guidance to staff on HEDIS measures.¹⁸

Incentive-based programs, which are largely based on delivering specific outcomes, have been widely acknowledged as a driver for improving quality of care. Providers point out that it is more important

to understand what both patients and health care data suggest needs to be done in order improve the quality of health care.¹⁵ A patient-physician relationship focused on person-centered care is key to improving quality of care. Both providers and employers believe it is important for patients/employees to be actively involved in their own care. Facilitating a patient's participation in clinical integration activities leads to higher levels of engagement. When patients are actively engaged, they feel empowered to have control over their own health.¹⁹

The delivery of care is often fragmented, resulting in increased utilization and higher cost. Coordinating care between and among providers can lead to a more seamless delivery system, lower utilization and reduced costs. Northern Physicians Organization utilizes the Admission, Discharge and Transfer (ADT) messaging available through the Michigan Health Information Network to notify individual physicians whenever one of their patients accesses the acute care system. Notification is done in real time, allowing physicians and care teams to effectively intervene as needed and to coordinate care between inpatient and outpatient environments.¹⁵ It is important for providers to collaborate not only with patients and their families but also with other providers who are part of the medical neighborhood as well as community support organizations.¹⁶

QUALITY IMPROVEMENT STRATEGIES FOR PATIENT-CENTERED MEDICAL HOMES

Provider organizations employ a variety of quality improvement tools to improve health care quality, patient outcomes, while reducing costs. While there is no one single approach to transforming health care, Michigan provider organizations identified a number of best practices that can assist a PCMH in achieving measurable improvement.

- Utilize LEAN Quality Improvement methods to improve performance by systematically removing waste from processes. The LEAN process emphasizes the use of data to help understand what needs to be improved, provides a systematic way to think about and act on a problem, and encourages collaboration among team members.¹⁵
- Learning collaboratives can be an effective tool for driving improvements in practices across a provider organization as the focus shifts from the individual patient to the population served by the organization.¹⁶
- Implement new models of care such as the High Intensity Care Model, which provides care management during extended visits in the home. The model removes access barriers and focuses on social determinants of health. Providers report learning more about their patients during the home visit than they do during office visits. Using motivational interviewing techniques helps to engage patients and focus on all of their health care needs including psychosocial.²⁰
- Use shared medical appointments to more actively engage patients. Providers have more time to connect with patients and have sufficient time to teach, answer questions and encourage patients to learn from one another. Shared medical appointments also result in more efficient use of the physician's time.²¹
- Establish a partnership for health between the provider and patient that challenges each patient to choose an aspect of their health to improve. The physician supports the patient's choice and works with the patient to achieve positive results. Require new patients to participate in a patient orientation appointment during which the patient learns about expectations and the culture of the practice.²¹

- Utilize care managers to assist with coordinating care and managing population health. Care managers offer a strong foundation for team-based care and are able to stay more engaged with patients through regular contact.¹⁵ Care managers also help to identify patient needs and then direct them to the most cost effective services.²³

CONCLUDING REMARKS

Organizational transformation requires a major investment of resources and the costs associated with completing the PCMH transformation process can be significant. It is important to acknowledge the net effect of cost on provider organizations; balancing what they will spend to implement PCMH and what they could potentially receive in payment incentives.²² Dr. Thomas C. Rosenthal, Professor Emeritus of Department of Family Medicine at the University of Buffalo, suggests that the long term investment is worth it.¹⁴ Bresnik notes that return on investment is not always immediate. In the case of health care, return on investment is achieved when dollars are not being spent on more costly services.²³

Actively engaging the patient in their care consistently emerged as a common theme in the literature as well in interviews with Michigan provider organizations and employers. When patients are actively engaged in their own care, quality of care and clinical outcomes improve, cost of care decreases and the satisfaction level for both patients and providers improves. The PCMH is “a place where we give patients permission to take care of themselves and the tools to do so and put in place systems to support that.”²¹

In a study reported in *Military Medicine*, the authors note that while there are general principles common to all PMCH models, there are characteristics that are unique to each organization such as population, organizational structure, culture, unique work flow processes, and team composition.⁸ These factors may have an impact on the degree to which an organization realizes improvements in cost, quality and utilization. One provider noted that it is not always possible to measure the outcomes of good care, which can make it difficult to measure the impact of PCMH on the quality of care. He noted that some things, such as the nature of the physician-patient relationship, can't be measured but does lead to significant improvements in health care.²¹

As Jen Bailey with Affinia Health Network Lakeshore noted, “We certainly have improved year over year and our experience has shown that providers who engage with PCMH and PCMH-N programs have higher levels of clinical integration task completion and improved patient experience, quality and utilization outcomes.”¹⁴

The growing body of evidence points to the PCMH as an effective delivery model for reducing costs, improving the quality of care, and enhancing the patient experience. Using data effectively, engaging patients in their own care, and working collaboratively with patients, families, providers and the community to manage and coordinate care are the foundational elements of a successful Patient-Centered Medical Home. The Michigan Primary Care Consortium believes that providing person-centered care provided in a Patient-Centered Medical Home is critical to having an effective and efficient primary care system in Michigan and is committed to its mission to “convene stakeholders to exchange knowledge facilitating the delivery of effective and efficient person center models of primary care in Michigan.”

References

1. IHI Triple Aim Initiative (n.d.). Institute for Healthcare Improvement. Retrieved January 21, 2016, from <http://www.ihl.org/engage/initiatives/tripleaim/Pages/default.aspx>.
2. Sandy, L.G., Haltson, H., Metfessel, B.A. & Reese, C. Measuring Physician Quality and Efficiency in an Era of Practice Transformation: PCMH as a Case Study. *The Annual of Family Medicine*. 2015: 13(3):264-268.
3. Perspectives in Primary Care: Michigan Paving the Way for Medical Homes. Michigan Primary Care Consortium. 2015.
4. Nielsen M, Gibson A, Buelt L, Grundy P, Grumbach, K. The Patient-Centered Medical Home's Impact on Cost and Quality: Annual Review of Evidence 2013-2014. Patient-Centered Primary Care Collaborative. January 2015.
5. The Future of Patient-Centered Medical Homes: Foundation for a Better Health Care System. (2014) NCQA. Retrieved March 3, 2016 from http://www.ncqa.org/Portals/0/Public%20Policy/2014%20Comment%20Letters/The_Future_of_PCMH.pdf.
6. Rosenthal, T. Are we learning more about patient-centered medical homes (PCMHs), or learning more about primary care. *Journal of the American Board of Family Medicine*, Vol. 29, No. 1, January –February 2016, 4-7.
7. Nielsen, M, Buelt, L, Patel, K, & Nichols, L. The Patient-Centered Medical Home's Impact on Cost and Quality, Review of Evidence, 2014-2015. Patient-Centered Primary Care Collaborative. February 2016.
8. Christensen E, Dorrance K, Ramchandani S, Lynch S, Whitmore, C, Borsky, A, Kimsey L, Pikulin L, Bickett T. Impact of a Patient-Centered Medical Home on Access, Quality, and Cost. *Military Medicine*, Vol. 178, February 2013. Pp 135 – 141.
9. Paustian, et al. (2013, July). Partial and Incremental PCMH Practice Transformation Implications on Quality and Cost. *Health Services Research*. Doi: 10.1111/1475-6773.12085.
10. Summary of Patient-Centered Medical Home Cost and Quality Results, 2010 – 2013. Patient-Centered Primary Care Collaborative. Retrieved April 22, 2016 from <https://www.pcpcc.org/resource/summary-patient-centered-medical-home-cost-and-quality-results-2010-%E2%80%932013>.
11. Testa, MA, Simonson, DC. Health Economic Benefits and Quality of Life During Improve Glycemic Control in Patients with Type 2 Diabetes Mellitus: A Randomized, Controlled, Double-Blind Trial. *JAMA*. 1998.
12. Stempniak M. Will Boeing Change Health Care? <http://hnhmag.com/articles/6709>. December 10, 2015.
13. The Primary Care Imperative: New Evidence Shows Importance of Investments in Patient-Center Medical Homes. 2016 National Business Group on Health®, March 2016.
14. Bailey, Jen. Phone Interview. 01 February 2016.
15. Elliott, Kris, Hooper, Marie, Nicolaou, Lisa. Phone Interview, 13 January 2016.
16. Cheema, Charan, Witt, Sandy. Phone Interview. 01 February 2016.
17. Clark, Ruth, Hauschild, Chelsea, Kuehn, April. Phone Interview. 28 January 2016.
18. Salow, Pat. Phone Interview. 26 January 2016.
19. Starbird, William. Phone Interview. 01 February 2016.
20. Buccalo, Gina. Phone Interview. 12 February 2016.
21. Stefanek, Greg. Phone Interview. 04 February 2016.
22. Angell, Donna. Phone Interview. 26 January 2016.
23. Bresnick, J. How the patient-centered medical home “repackages” primary care. *HealthIT Analytics*. Retrieved January 28, 2016 from <http://healthitanalytics.com/new/how-the-patient-centered-medical-home-repackages-primary-care>.