

Attachment 3 – Research

A Preliminary Review of the Research: Patient-Centered Medical Homes

Wisconsin Department of Health Services – November 2013

Background

The Patient-Center Medical Home (PCMH) is an approach to primary care based on six key elements:

- ✓ Increasing accessibility
- ✓ Fostering continuity
- ✓ Comprehensiveness
- ✓ Coordination of care
- ✓ Team-based care, including the patient and often their family as part of the care team
- ✓ Evidence-based practices and a focus on quality

Evolved from pediatric medical homes initiated in the 1960's for children with special health care needs and various models designed to manage chronic diseases, PCMHs are now viewed as a promising model to help transform primary care and subsequently meet the triple aims of higher quality care, increased patient satisfaction and lower costs. The model was embraced by the American Academy of Family Physicians, American Academy of Pediatrics, American College of Physicians and American Osteopathic Association in 2007 with issuance of the Joint Principles for the PCMH, <http://www.pcpcc.net/joint-principles>.

Early Evidence

To date, the evidence of effectiveness of patient-centered medical homes is scant. This is due, primarily, to insufficient research given the limited time since their initial implementation in 2007 (based on the Joint Principles) and the extensive variation in implementation. Other obstacles to rigorous evaluations include the lack of standard measurements, small sample sizes and the length of time required for quantitative evaluations to be completed and published. Numerous rigorous evaluations are currently underway for PCMHs implemented since 2010, including Medicare's Comprehensive Primary Care Initiative. While current evidence is lacking, researchers and policy makers should continue to ask "in what context, with what populations, with what supports and what payment incentives does the medical home work; and how long does it take to see the impact." The following brief summaries are based on a preliminary review of the existing research.¹

¹ This limited review did not include evaluations of individual patient-centered medical homes or clusters of PCMHs within an integrated health system. It should also be noted that the majority of PCMHs established between 2007 and 2010 focused on populations with chronic health conditions or serious medical conditions.

1. *Early Evidence on the Patient-Centered Medical Home*. Mathematica Policy Research. Agency for Healthcare Research and Quality. February 2012. <http://pcmh.ahrq.gov/>.

Based on a systematic review of almost 500 quantitative evaluations of the medical home model (as promoted by the Joint Principals) undertaken by researchers at the Agency for Healthcare Research and Quality and Mathematica Policy Research, there is evidence of favorable effects on the three triple aim outcomes, a few unfavorable effects on costs and mostly inconclusive results due to small sample sizes and methodological issues. These initial findings should be considered in the context of nascent models: implemented between 2007 and 2010, that included at least three of the Joint Principles for PCMH and were rigorously evaluated. The authors caution that the 14 interventions selected for inclusion in the review should be viewed as precursors to the PCMH model implemented after 2010. Summary findings from the 14 studies that met the criteria for review are highlighted below.

Quality – Only one evaluation found statistically significant favorable results in terms of quality.

Costs – One evaluation found some evidence of savings which were limited to a high-risk subgroup, but increased costs for the overall target population. One study found a reduction in hospitalizations of 18% for all Medicare Advantage patients. A second study found favorable effects among a subgroup of high-risk patients. One of three studies examining the use of emergency departments found favorable effects in year two.

Improving the Experience of Care – Two of the three studies examining patient experience found a preponderance of favorable results.

Improving Professional Experience – Findings from the single evaluation that examined professional experience were inconclusive.

2. “A Randomized Trial of Augmented Prenatal Care for Multiple-Risk, Medicaid-Eligible African American Women.” *American Journal of Public Health*. January 2001. www.ncbi.nlm.nih.gov/pubmed/11189800

While this intervention preceded PCMHs by several years, the augmented care included a number of strategies consistent with the Joint Principles. Among these were increased access to appointments; more time with care providers (physicians and nurses); self-management; assistance in reducing smoking and stress; and efforts to improve positive social supports. Findings included increased satisfaction with care, increased understanding of their risk factors, increased attendance at prenatal appointments and decreases in smoking. Women in the treatment group also had lower rates of preterm births and cesarean deliveries and stays in neonatal intensive care units occurred in smaller proportions. There were no reductions in low birth-weight babies.

3. “Health Care Savings with the Patient-Centered Medical Home: Community Care of North Carolina’s Experience.” *Population Health Management*. September 2013. www.ncbi.nlm.nih.gov/pubmed/24053757

This study examined the financial impact of implementing a comprehensive care management intervention program in North Carolina for non-elderly Medicaid members with disabilities over almost five years. Findings reveal significant cost avoidance for enrollees with savings increasing with the length of time in the program. Savings were greater for those with multiple chronic diseases.

4. *Benefits of Implementing the Primary Care Patient-Centered Medical Home: A Review of Cost & Quality Results, 2012*. Patient-Centered Primary Care Collaborative. 2012.
<http://pcpcc.org/guide/benefits-implementing-primary-care-medical-home>

This report is based on a review of 46 studies of PCMHs that differed in scope and implementation and used different methods of analysis. It highlights results from peer-reviewed research as well as analysis from the industry / health plans. In general, the review found evidence of improvements in quality – e.g., increased access to care, improvements in health – e.g., for those with manageable chronic conditions, lower costs – e.g. reductions in emergency department visits and avoidable hospitalizations and increased provider satisfaction.