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Online Supplementary Material

McAllister JW, Cooley WC, Van Cleave J, Boudreau AA, Kuhlthau K. Medical home transformation in pediatric primary care—what drives change? *Ann Fam Med*. 2013;11(Supp 1):S90-S98.

http://www.annfammed.org/content//11/Suppl_1/S90

Supplemental Appendix. Context Matters

Attributes, Actions, Culture, Motivations	Description	Changes Over The Course of Study
Public policy	Medical home was USMCHB policy priority AAP medical home policy paper NCQA Patient-Centered Medical Home standards Minnesota "health home" legislation established Concept of medical home "transformation" emphasized	Accountable Care Act (2012) upheld by Supreme Court; establishes enhanced Medicaid support for medical home NCQA 2011 standards reflected more pediatric elements than 2008 Transformation did not resonate with practices; a continuous family-centered quality improvement process did Meaningful use incentives and requirements expanded EHR uptake
Community	Study practices represented 12 separate practice communities across 9 states Before MHLC, there was minimal practice/community knowledge of resources or community engagement	Community linkages were a developing/strong focus 6-7 years after onset of the patient- and family-centered medical home Economic downturn affected practices; some practices reported families forgoing care
Health care system	MHLC sponsorship came from USMCHB and state Title V programs for children with special health care needs Supports from health plans were minimal	State resources for pediatric practice improvement dwindled Most state CHIPRA grants chose medical home as a focus Two study practices were recognized as PCMHs, received per-member-per-month and/or shared savings payments; other practices had variable small grant support
Primary care practices	The 45 MHLC practices employed no care coordinators at the beginning of the MHLC 12 study practice sites represented diverse mix of urban, suburban, rural, small, and large practices 2 practices used EHR for medical home functions	11 of the 12 high-performing practices employed care coordinators 7 years later 1 practice lost its clinical director, lagging behind others Low clinician and staff turnover was observed in majority of practices
Patients	Children and youth with special health care needs were targeted Families looked for viable ways to help and/or partner with the practices Patient/family diversity represented by practice catchment areas (see Table 1 in article)	Shifting focus from children with complex needs benefiting from a medical home to *all* children Increasing practice emphasis on patient/family engagement Practices beginning to focus on health care transition of youth from pediatric to adult-focused care

Intervention	MHLC was original intervention initiating change process Some states followed MHLC with a statewide learning collaborative and used original MHLC practices as teachers and as examples Medical home grants were awarded in 2007 by USMCHB to implement Performance Measures for Children and Youth with Special Health Care Needs	MHLC initiated a change process, but practices had to sustain this process using varied internal/local support Practices, networks, and some state programs (Minnesota, Pennsylvania, North Carolina) continued promotion of the medical home No new medical home–specific grants were awarded by USMCHB State implementation grants (D70) and integrated system of services grants were awarded CHIPRA grants supported some medical home activities; CHIPRA grantees with medical home projects used a special revised short version of the MHI, which creates a common medical home measure across participating states
Research team	Research team was made up of medical home content experts (CHMI) and research design experts (Center for Child and Adolescent Health Policy, Massachusetts General Hospital for Children) Interviews occurred 7 years after MHLC and assessed *current* medical home activities	There were no changes to core research team CMHI investigators were awarded USMCHB National Health Care Transition Center grant to address successful transition of youth with special health care needs to adult-focused care in a medical home Health care transition emerged as an opportunity to bring in new partners and link pediatric and adult-focused care providers around patient needs for transition
Other key stakeholders	NICHQ, USMCHB, AAP/AAP's National Center for Medical Home Implementation, Family Voices, State Maternal and Child Health Department Title V programs	Additional emergent stakeholders and improvement partners: Patient-Centered Primary Care Collaborative (PCPCC) Signers of the Joint Principles of the PCMH (AAP, ACP, AAFM, AOA) AAP regional and local chapters National Association of Pediatric Nurse Practitioners (NAPNAP) Association of University Centers on Disabilities (AUCD): Leadership Education in Neurodevelopmental and Related Disabilities (LEND) National Coordinating Center for Genetics and Newborn Screening

AAFM = American Academy of Family Medicine; AAP = American Academy of Pediatrics; ACP = American College of Physicians; AOA = American Osteopathic Association; CHIPRA = Children's Health Insurance Program Reauthorization Act; CHMI = Center for Medical Home Improvement; EHR = electronic health record; MHI = Medical Home Index; MHLC = Medical Home Learning Collaborative; NCQA = National Committee for Quality Assurance; NICHQ = National Initiative for Children's Health Care Quality; PCMH = patient-centered medical home; USMCHB = United States Maternal and Child Health Bureau.

Context Details

Public policy – The medical home concept has been a centerpiece of the policy agendas for both the USMCHB and the AAP for more than a decade. The Patient Protection and Affordable Care Act (PPACA) creates fertile ground with dynamic opportunities for facilitating practice transformation.

Community – The medical home represents a vital community resource for children and families. The reach of primary care into the community has been minimal; this paradigm is shifting as practices seek new collaborations with community partners.

Health care system – The adult medical home is a current beneficiary of focused primary care investment. Quality and cost containment efforts, framed as the Triple Aim, drive these activities. Pediatric support has been less robust; this shortcoming should improve under PPACA provisions. Pediatric practice inclusion in state medical home demonstration projects is beginning to occur.

Primary care practices – Little is known about factors that facilitate the transformation of a pediatric practice to a high-performing medical home. The 12 practices in this study demonstrated medical home capacity as a result of quality improvement processes. They continued to invest in improvements serving children with special health care needs and ***all*** children. Developing teamwork and care coordination functions equipped them to provide better family-centered and population care.

Patients – The pediatric medical home first focused on children with special health care needs. Today, all children are emphasized with interventions expanding, contracting, or both as a result of child and family biopsychosocial and functional needs.

Research team – The CHMI has 20 years of medical home expertise that is combined with the expertise of research partners at the Center for Child and Adolescent Health Policy, Massachusetts General Hospital for Children

Interventions – A Medical Home Learning Collaborative (using Breakthrough Series methodology) jump-started transformation in study practices. Primary care continues to need medical home transformation supports. Although limited in budget, USMCHB-funded integrative system grants and CHIPRA-related efforts offer some pediatric assistance. Learning communities need to continue to create, test, spread, and take to scale effective pediatric strategies.

Other key stakeholders – Professional organizations are challenged by how to ensure successful health care transitions for their populations; these groups are emerging stakeholders. They include the Association of University Centers on Disabilities – Leadership Education in Neurodevelopmental Development, Regional Genetics Collaboratives, and other chronic condition–focused organizations.

Replication – Although health care reform evolves alongside natural experiments of practice improvement, continued research will be needed. Quality improvement, teamwork, family centeredness, and care coordination require continued development and study. An efficient and valid measure of medical home transformation such as the CHMI's Medical Home TAPPP (Team, Access, Population, Planned, and Patient/family centered) (Gap) Analysis would allow for further study in both high-performing and more typical primary care practices.