



Strengthen the Evidence Base for Maternal and Child Health Programs

Medical Home

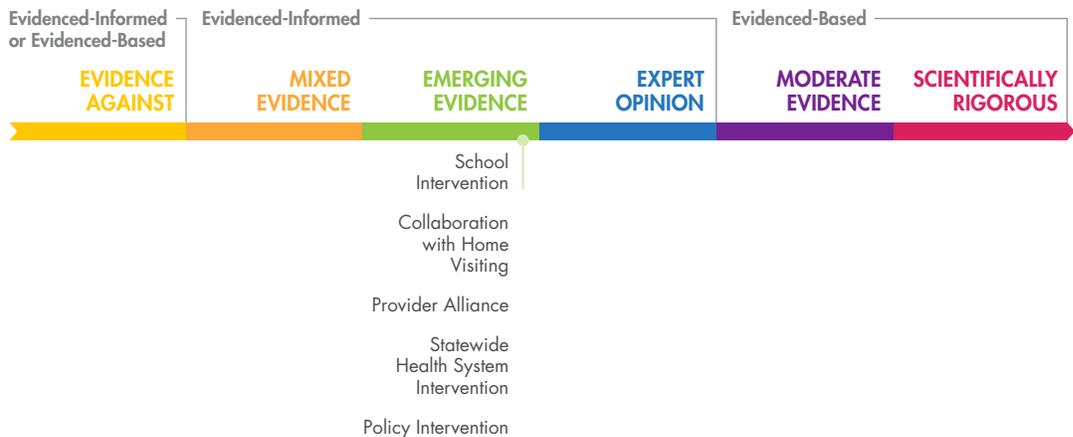
Medical home is one of fifteen Maternal and Child Health (MCH) National Performance Measures (NPMs) for the State Title V MCH Services Block Grant program. NPM 11’s goal is to increase the number of children with and without special health care needs who have a medical home. The aim of this evidence analysis review is to identify interventions to increase *access*¹ to care consistent with the medical home model for all children and youth, including children and youth with special health care needs (CYSHCN).

This brief identifies evidence-informed and evidence-based strategies that State Title V programs might consider implementing to address NPM 11. It provides background information, summarizes the approach, and describes the results, implications, and need to move from evidence to action. The full review

can be found at: <https://www.mchevidence.org/documents/reviews/npm-11-medical-home.pdf>. The report is supplemented by implementation resources for Title V programs that can be found in the MCH Evidence website’s NPM 11: Medical Home Toolkit at <https://www.mchevidence.org/tools/NPM/11-medical-home.php>.

The evidence analysis review was conducted as part of Strengthen the Evidence Base for MCH Programs, a Health Resources and Services Administration (HRSA)-funded initiative that aims to support states in their development of strategies to promote the health and well-being of MCH populations.

Evidence Continuum. The evidence review categorized interventions along an evidence continuum from *evidence against* (least favorable) to *scientifically rigorous* (most favorable).²



¹The MCH Evidence Center defined access broadly as the ability to obtain care consistent with the medical home model. Increased access can mean gaining entry to care that is already consistent with the medical home model (either through insurance coverage or a new access point), or improving elements of existing care to make the care received consistent with the medical home model (e.g., by increasing timeliness of care, providing greater continuity of care, improving communication between providers and families, enhancing the patient experience). This definition combines elements from the Healthy People 2020 and American Academy of Pediatrics (AAP) definitions of access.

²Refer to the full report for a description of the continuum.

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ONLINE TOOLS

The report is supplemented by implementation resources for Title V programs that can be found in the MCH Evidence website's NPM 11 Toolkit at <https://www.mchevidence.org/tools/NPM/11-medical-home.php>. These resources include links to introductory information, a summary of the evidence, examples of promising practices, sample evidence-based or informed strategy measures (ESMs), links to current, related ESMs in process across the country, learning opportunities, and resources from the leading proponents of the medical home model.

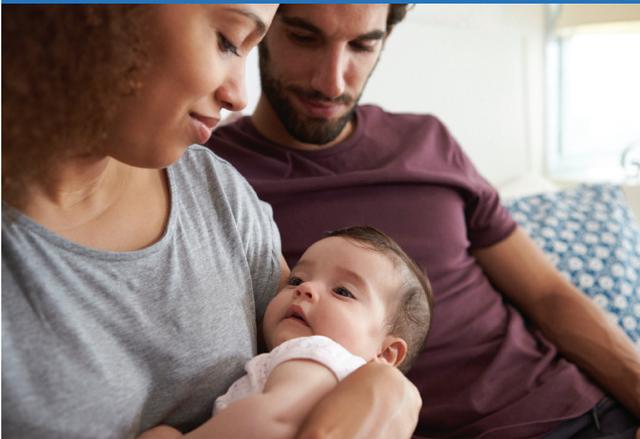


FIGURE A: MEDICAL HOME MODEL OF CARE BICYCLE WHEEL



Background

Definition. In a 2002 policy statement, the American Academy of Pediatrics (AAP) defined the medical home as a “*model of delivering primary care that is accessible, continuous, comprehensive, family-centered, coordinated, compassionate, and culturally effective to every child and adolescent*” (Medical Home Initiatives for Children with Special Needs Project Advisory Committee, AAP, 2002). For more than two decades, the Health Resources and Services Administration’s Maternal and Child Health Bureau (HRSA MCHB) has promoted this model of primary health care. A pediatric medical home is described as a family-centered partnership within a community-based system that provides uninterrupted care with appropriate payment to support and sustain optimal health outcomes.³

The importance of medical home. Importantly, the medical home model is seen as the standard of care for all children and youth. It recognizes the family as the constant in a child’s life and emphasizes partnership between health care professionals and families.⁴ A medical home is not a building or particular place, but an ideal approach for delivering good care. In essence, it is similar to the hub and spokes on a bicycle wheel (See **Figure A: Medical Home Model of Care Bicycle Wheel**).⁵

Each child has a primary care “hub” that is his or her first stop for most preventive, acute, and chronic health services. In addition, a child can access different “spokes,” including medical specialists, family resources, and community resources through and with the primary care “hub.” These connections and services are all coordinated to provide comprehensive, quality care.

National survey data. Recent survey data from 2016 National Survey of Children’s Health revealed that approximately 43.2% of CYSHCN and 50% of non-CYSHCN in the United States (US) had access to a medical home as reported by their parent or caregiver (Lichstein, Ghandour, & Mann, 2018). With regard to racial and ethnic make-up, for both CYSHCN and non-CYSHCN, the rate of reported medical home attainment was lowest among Hispanic children (36.3% and 36.1%), followed by non-Hispanic black children (38.9% and 40.2%), and it was highest among non-Hispanic white children (48.0% and 59.8%) (Lichstein, Ghandour, & Mann, 2018). Lichstein, Ghandour, & Mann (2018) also reported

³ <https://www.aap.org/en-us/about-the-aap/aap-facts/AAP-Agenda-for-Children-Strategic-Plan/Pages/AAP-Agenda-for-Children-Strategic-Plan-Medical-Home.aspx>

⁴ <https://medicalhomeinfo.aap.org/overview/Pages/Whatisthemedicalhome.aspx>

⁵ J. Lichstein, personal communication, May 22, 2019

that children living in households in which English was not the primary language and those that were uninsured were less likely to have medical home access.

Systematic reviews. Overall, the evidence base on the pediatric medical home model of care is emerging to indicate a positive relationship between access to and utilization of the model and desired outcomes such as improved health and quality of life and increased satisfaction for children and families. There is mixed evidence, however, regarding costs that requires further examination so states and jurisdictions are able to make the most informed program decisions and resource allocations.

Medical home Evidence-based or informed Strategy Measures (ESMs). Across the states and jurisdictions that chose medical home as one of the NPMs, there are 74 ESMs⁶ that have been chosen by Title V agencies to monitor progress in advancing NPM 11. Of these ESMs:

- 16 represent activities directed to professionals (e.g., training activities, technical assistance),
- 36 are directed to families and their children (e.g., outreach materials to families, family-to-family support, development of care coordination plans), and
- 22 represent activities related to systems-building (e.g., engagement of stakeholder groups, quality improvement initiatives, collaboration between systems of care).

Against a matrix of the “MCH Pyramid,”⁷ the conceptual framework for services of the Title V MCH Block Grant program, of the 74 ESMs that focus on NPM 11:⁸

- 3 measure activities related to public health services and systems and
- 71 measure strategies related to enabling services.

The MCH Evidence Center uses Results-Based Accountability (RBA)⁹ as a conceptual framework to track how ESMs are measured. States and jurisdictions should focus efforts in expanding how they measure programs by tracking strategies that measure effect rather than effort.¹⁰

- 69 current medical home ESMs measure **effort** (e.g., measures of what the Title V program did, measures of how well they delivered service) and
- 5 current medical home ESMs measure **effect** (e.g., increases in skills/knowledge, change in behavior or circumstance).

Methods and Results

Evidence-informed studies/strategies to increase access to the medical home model. Peer-reviewed studies were identified by searching three online databases. Five peer-reviewed studies were included after an extensive process of elimination. Given the scarcity of studies focused on increasing access to care consistent with the medical home model, each included study was rated on its own merit.¹¹

EVIDENCE-INFORMED STRATEGIES TO INCREASE ACCESS TO CARE CONSISTENT WITH THE MEDICAL HOME MODEL

TARGET AUDIENCE	INTERVENTION	EXAMPLE	EVIDENCE RATING
Provider¹²/Practice and School System	School intervention	Partnership and care coordination with school-based health centers to create an expanded medical home	Emerging Evidence
Provider/Practice and Home Visiting Program	Collaboration with home visiting	Early connections to the medical home model through care coordination and collaboration with home visiting	Emerging Evidence
Provider/Practice	Provider alliance	Community outreach and coordination of primary care and specialty services to create a “one-stop” model of the medical home	Emerging Evidence
State	Statewide systems intervention	A statewide expanded health system for children in foster care	Emerging Evidence
	Policy intervention	A policy intervention transitioning children from a fee-for-service model of health care to a primary care case management model	Emerging Evidence

⁶ Detailed ESMs can be found through the MCH Digital Library: <https://www.mchlibrary.org/evidence/state-esms.php>

⁷ Title V Maternal and Child Health Services Block Grant to the States Program: Guidance and Forms for the Title V Application/Annual Report (OMB No. 0915-0172; Expires 12/31/2020).

⁸ The conceptual framework for the services of the State Title V MCH Block Grant is envisioned as a pyramid with three tiers of services and levels of funding that provide comprehensive services. See <https://mchb.tvisdata.hrsa.gov/Glossary/Glossary> for a graphical representation of the pyramid.

⁹ RBA is described in the RBA Implementation Guide <http://raguide.org/index-of-questions/>

¹⁰ ESM Review & Resources: National Summary <https://www.mchevidence.org/documents/ESM-Review-National-Summary.pdf>

¹¹ This is a departure from previous evidence analysis reports.

¹² The term provider refers broadly to pediatric clinicians including pediatricians, nurses, physician assistants, therapists, and others.

¹³ Care coordinators in the cited studies were compensated in their role as professional staff members. However, details regarding the source of funding and compensation for care coordination activities were not specifically provided.

STRATEGY RECOMMENDATIONS NEEDING MORE STUDY		
STRATEGY	DESCRIPTION	REFERENCE
Inclusion of a dedicated care coordinator or outreach worker	Primary care and medical home partner with a care coordinator or community health worker who has dedicated time for outreach ¹³	Berry et al., 2017; Justvig et al., 2017; Treadwell et al., 2014
Expansion of partnerships	Collaborations or partnerships with public or private organizations to reduce barriers to accessing care within the medical home model Examples: Early intervention, mental health, school-based health clinics, emergency or tertiary care centers	American Academy of Pediatrics Council on Children with Disabilities, 2007; Galligan, et al., 2018; Madrid, et al., 2008; McPherson-Corder, 1995; Rushton, et al., 1999; Tschudy, et al., 2013
Telehealth and telemedicine	Physician link/communication with patients in community settings via electronic or mobile applications	Herendeen et al., 2014; North, et al., 2014; Slaper et al., 2014
Training	Training primary care providers to implement all medical home components	Butcher, et al., 2014

These sources were categorized into interventions at the community (focus on providers/practices, school systems, and home visiting programs), state, and policy levels.

These strategies have the potential to increase access to the medical home model of care, but require more study. Several studies that did not meet review criteria, presented interventions *with the potential to improve access to the medical home model of care*, but require further study and more rigorous evaluation to determine efficacy and effectiveness.

Key Findings

1. There is limited rigorous evidence about effective interventions to increase access to a medical home for children with and without special health care needs.
2. The identified interventions were focused on all children with no strategy specifically targeting CYSHCN.
3. The studies identified partnerships and care coordination as critical mechanisms to improve access to care within the medical home model.
4. Use of community collaborators, such as school-based health centers (SBHCs) and outreach via community care coordinators, resulted in more children receiving care within the medical home model. More specifically, collaborations with SBHCs, home visiting programs, or use of enhanced care coordination in underserved, urban neighborhoods or with children in foster care led to positive outcomes. These impacts include increased contact with the medical home model for well-child visits, access to specialty care, better adherence with disease management, and dental care.

5. A shift in state policy was also found to increase access to a medical home for children receiving Medicaid. Moving from a traditional fee-for-service model of health care financing and delivery to a primary care case management model by a Medicaid program resulted in more targeted identification and support for children and their families to enter into a medical home model of care.

Implications

1. The goal of this evidence analysis review was to look beyond the question of the effectiveness of a medical home to those interventions that increased access to care consistent with the medical home model for children and youth.
2. Vulnerable children and youth who disproportionately experience health disparities in the US have the least access to care within the medical home model. Children and adolescents who live in low-resourced neighborhoods, in families with low incomes, and those from traditionally underserved racial, ethnic, and linguistic groups were more likely to have more barriers to access care consistent with the medical home model. These marginalized populations were specifically targets of interventions to increase access to care within the medical home model. State agencies and their collaborating partners can consider these strategies in terms of promoting health equity with goals and measures for target populations based on the data in their state or jurisdiction.
3. To expand the evidence base around effective strategies to increase access to care consistent with the medical home model, more interventions need to

¹³ Care coordinators in the cited studies were compensated in their role as professional staff members. However, details regarding the source of funding and compensation for care coordination activities were not specifically provided.

focus specifically on growing access to the concept and reducing inequities to ensure that all children have access to a pediatric medical home.

- States and jurisdictions with programs that are elucidating strategies can contribute to the evidence by teaming with researchers to build in evaluation systems and share information about strategies that show value for increasing access to care consistent with the medical home model.

From Evidence to Action

This report is part of a series of scholarly works focused on each NPM to identify and describe evidence-based and informed strategies from peer-reviewed and grey literature. Interventions identified by this process form the cornerstone by which Title V agencies can construct programs and measures that will affect change with their unique populations and advance their NPM topic areas. If you are looking to build or strengthen medical home efforts in your state or jurisdiction, moving “from evidence to action” can seem daunting. The MCH Evidence Center has developed a framework, tips, and resources to help you through the process. We are available to assist you. Email us at mchevidence@ncemch.org.

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