COORDINATING COMPREHENSIVE HEALTHCARE WITH HOME VISITS FOR NEW FAMILIES:
A Case Study of Home Visitation Integration with the Family-Centered Medical Home at Carolina Health Centers

by

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The Impact of Early-Life Experiences

It is well documented that early-life experiences have profound effects on the brain and body that can last throughout a child’s lifetime. In addition to having an affect on physical health, these early-childhood experiences also determine emotional and cognitive development. Early experiences, environmental influences, and genetics affect young children’s brains as they develop, which, in turn, affects long-term health and lifetime trajectories.

We also know that healthy child development is the foundation for community economic development. Investing in the social, emotional, cognitive, and healthy development of children from birth to age five is where the greatest impact can be made toward improving the well-being of our children and our communities. Healthy brain development is most critical in infancy, and the use of child healthcare is highest in infancy.

Researchers have found that when children and their families have a stronger connection to a medical home, children experience better pediatric health outcomes; experience improved healthcare use; are less likely to need emergency department facilities or have outpatient sick visits; and have increased health-promoting behaviors, including reduced missed days of school due to illness or injury, improved family reading, better sleep hygiene, improved health use, and decreased screen time. The near-universal reach of medical homes to child healthcare may result in significant public health impacts.

Home Visiting: Building Parental Ability for Better Child Health and Development

Used for prevention or intervention, home visiting (HV) is a service delivery instrument that has been used across many disciplines. HV programs typically use either a professional or paraprofessional worker to provide services, guidance, and information in an innovative way that eliminates many of the traditional barriers to service delivery.

In the case of early childhood, HV is a service delivery strategy that reaches families as early as the prenatal stage, at the birth of a child, or prior to school entry. Many early-childhood HV programs target families and caregivers at high risk for poor health, development, or economic outcomes; other programs are universal, reaching all new parents. Most HV programs are able to address child health and development by reaching mothers, fathers, and caregivers. The range of HV categories within the early-childhood sector include maternal, infant, and early childhood HV; home visitation for children in at-risk families; and home visits as an integral part of child-care or school-based educational programs.

Although it is important to note that home visiting is not a cure-all, the available empirical evidence suggests that HV programs show promise to reach families in need and affect positive change for children and their parents. HV must be one of several service strategies included in a comprehensive, high-quality early-childhood system that promotes maternal, infant, and early childhood health, safety, and development; strong parent-child relationships; and responsible parenting.

Although home visiting has been a tool since the 1800s, maternal and child HV services have become a prominent part of the national policy conversation for the past five years. In 2009, the American
The Academy of Pediatrics (AAP) released a policy statement reaffirming home visiting as an intervention to enhance developmental, health, and safety outcomes for children and states. In 2010, a grant award funded by the Children's Health Insurance Program Reauthorization Act of 2009 was used to create the foundation for a more responsive and effective national system of high-quality healthcare for children. In March 2010, the Maternal, Infant and Early Childhood Home Visiting (MIECHV) program was created as part of the Patient Protection and Affordable Care Act of 2010 (ACA). Under the ACA, home visitation must be part of an early-childhood system of care.

There are many benefits of home visitation programs that target pregnant women or families with children from birth to age five. Most HV models have had favorable impacts on child development, school readiness, and positive parenting practices. Research has also shown that HV models produce cost savings longitudinally, with the greatest savings realized among those who were at greatest risk.

**Introduction to the Family-Centered Medical Home**

The medical home concept focuses on changing the way care is provided by putting the patient at the center of his or her medical care. The medical home provides a central place for patients to feel like they are part of the care they are receiving. The medical home concept was originally developed in the 1960s and 1970s and is identified by the U.S. Department of Health and Human Services Agency for Healthcare Research and Quality as a promising way of revitalizing the nation's primary care system in order to achieve high-quality, accessible, efficient healthcare for all citizens.

The concept of the medical home was more fully defined by policy statements from the AAP in 1992 and 2002. The AAP defines the medical home as care that is accessible, continuous, comprehensive, family-centered, coordinated, compassionate, and culturally effective; delivered or directed by well-trained physicians who provide primary care and manage and facilitate essentially all aspects of pediatric care, with a physician known to the child and family and able to develop a partnership of mutual responsibility and trust. Under the umbrella of the medical home are the patient-centered medical home (PCMH) and family-centered medical home (FCMH).

**The Joint Principles of the Patient-Centered Medical Home**

- **Personal physician.** Each patient has an ongoing relationship with a personal physician trained to provide first-contact, continuous, and comprehensive care.

- **Physician-directed medical practice.** The personal physician leads a team of individuals at the practice level who collectively take responsibility for the ongoing care of patients.

- **Whole-person orientation.** The personal physician provides all of the patient's healthcare needs or takes responsibility for appropriately arranging care with other professionals. This includes care for all stages of life.

- **Coordinated or integrated care.** Care is coordinated and/or integrated across all elements of the complex healthcare system and the patient's community. Care is facilitated by registries, information technology, health information exchange, and so on to ensure that patients get the indicated care when and where they need and want it in a culturally and linguistically appropriate manner.
» **Quality and safety.** These are the hallmarks of the medical home.

» **Enhanced access to care.** Enhanced access is available through such systems as scheduling, expanded hours, and new options for communication among patients, their personal physician, and practice staff.

» **Payment.** Payment appropriately recognizes the added value provided to patients who have a PCMH.

The PCMH integrates patients as active participants in their own health and well-being. Within this model, patients are cared for by a physician who leads the medical team that coordinates all aspects of the preventive, acute, and chronic needs of patients by using the best available practices and appropriate technology.\(^\text{19}\)

**Key Elements of a Medical Home for Child Health\(^\text{20}\)**

» Care is delivered using a population-based approach.

» Registries of children with chronic conditions are created with information about condition severity, diagnoses, and needed supports.

» Care is coordinated with the multiple health and related services that children and families need.

» Parents are involved in decision making and practice-based quality improvement.

» Clinical practice standards reflecting children’s conditions are applied.

» Newborn screening and surveillance ensues for developmental milestones and unique conditions.

» Children and families are educated about their conditions.

» Community agencies, especially schools, are involved.

The national conversation on PCMHs was spurred by the 2004 American Academy of Family Physician’s “Future of Family Medicine” report, which described the PCMH as a “new model of family medicine” that could revolutionize the way family healthcare is provided.\(^\text{21}\) There have been many studies and demonstrations on the applicability, success, and cost of PCMHs. In addition, research has demonstrated that when primary care is emphasized in health systems, patients experience better outcomes at lower costs.\(^\text{22}\)

The patient-centered medical home has many benefits. The implementation of this model is promising for overall healthcare reform as a means to attaining broader goals of a reformed system that promotes the interests of the patient as an individual to be communicated with, rather than a case to be managed.\(^\text{23}\) The PCMH betters the patient’s experience by improving access to care and by better matching their needs and preferences with the care they receive.
Why Should Home Visiting Models and Patient-Centered Medical Homes Collaborate?

Home visiting integration with the PCMH can create a system of high-quality well-child care, with the potential to promote child health and well-being and reduce disparities in health and healthcare. Many benefits can result from a meaningful partnership of the PCMH and HV models. Bringing together the FCMH and the community through HV programs will help integrate personal and population approaches to health and healthcare delivery. This will allow healthcare to become more about optimizing each child’s life and family’s course trajectory, improving outcomes and reducing costs more than the current system allows. The benefits of PCMHs are only amplified by coordinating the medical home with home visiting models.

Benefits of Partnerships between Home Visitation and the FCMH

- Sharing of information to identify child and family needs, collaborate in educating families, and "refer" to each other
- Assisting families in care coordination
- Facilitating referrals to community resources, medical evaluations, and community supports
- Identifying community needs that are important in managing population health
- Assisting transitions across multiple settings
- Assisting parents and patients in communicating with FCMH providers and preparing for FCMH visits
- Reinforcing advice and anticipatory guidance given by FCMHs
- Monitoring up-to-date immunizations and FCMH visits
- Fostering cultural and linguistic competence of families and patients, because HV providers see families in their home environment
- Identifying nutritional and living condition needs and performing environmental and safety assessments
- Reinforcing injury prevention strategies
- Improving identification, treatment, and prevention of parental depression
- Overseeing provision of complex healthcare in the home of children with serious health conditions and helping to balance the needs of the child with those of other family members
- Identifying needs for special needs equipment and for implementing prescribed care in the least disruptive manner

The shared goals, greater efficiencies, and reductions in disparities of health and healthcare show that there are many benefits of a partnership between HV models and the children’s medical home. The MIECHV program has underscored the potential impact of these collaborations, as integration could
create significant results in public health and the well-being of children and families. There has been recent investment in HV programs and an emphasis on the FCMH through the ACA. Two of the leading pediatric associations in the United States—the AAP and the American Pediatric Association—have endorsed collaboration between home visitors and primary care providers as a unique opportunity to integrate and improve services provided to children and families. All of these considerations show that now is a good time to partner FCMHs and HV models, as there is support from the federal government and major pediatric professional associations.

The continuum of integration between the patient-centered medical home and home visiting goes through several stages, as outlined Figure 1.

**Figure 1**
*Continuum of integration*

Source: Adapted from the Institute of Medicine of the National Academies Committee on Integration of Primary Care and Public Health

**The Children’s Center of the Carolina Health Centers Inc.**

An example of true integration of the PCMH and HV programs is taking place in Greenwood, South Carolina, at the Children’s Center of Carolina Health Centers Inc. The center’s movement across the integration continuum is an ongoing process, with continual improvements, but Carolina Health Centers has seen success and is moving forward through the continuum.
The Children’s Center was incorporated as the Greenwood Community Children’s Center in 1996 to provide a stable medical home for the children of the greater Greenwood area. Carolina Health Centers Inc. (CHC) is a nonprofit, federally qualified health center that has been providing medical and dental care to the medically underserved residents of a seven-county area in the west-central portion of South Carolina for more than 30 years. The service area (Greenwood, Laurens, McCormick, Abbeville, Saluda, Edgefield, and Newberry counties) is rural and has a large low-income white population.

The Children’s Center (TCC) of CHC serves more than 8,000 children annually. Most of the children in CHC’s service area come to TCC, which is the primary site of integrated care of their HV and PCMH framework. This pediatric medical home has been designated a PCMH by the National Committee for Quality Assurance. Through shared administrative oversight and dedicated leadership, the HV services and pediatric medical home have been able to reduce the challenges and practical realities that often impede meaningful collaboration to improve outcomes for patients.

The Children’s Center Model capitalizes on the following:

1. Families’ perception of the medical home as a trusted source of information
2. The medical home as a natural point of contact to engage all families, even hard-to-reach families, with young children
3. The opportunity to expose families to the consistent health messaging from both medical professionals and nonmedical professionals that is necessary to change behaviors

TCC’s integrated system enables them to meet the needs of the 40–60 newborns they enroll monthly. This system also allows them to identify, recruit, and engage mothers and newborns who are at highest risk of poor health and other adverse outcomes, as well as those who are at moderate risk or who need universal preventive education and skills development. Because TCC runs a continuum of programming, they are able to triage families into the service intervention that best meets the needs of the individual family for service intensity or duration. By integrating their HV programs with PCMH, TCC reduces typical barriers that slow access to evidence-based care, allows families to be triaged into the model that best fits their individual needs for intensity or duration, and reduces the practical barriers that can limit meaningful collaboration among pediatric providers, behavioral health providers, and home visitation providers. The PCMH and HV staffs function as a team to improve quality indicators in both pediatric care and early-childhood home visitation.
The Children’s Center provides multiple models of evidence-based home visitation integrated within primary health care. The primary goal of their HV programs is to promote healthy child growth and development through responsive and responsible parenting. TCC hosts three HV models: Nurse-Family Partnership (NFP), Healthy Families America (HFA), and Healthy Steps for Young Children (HS).

Carolina Health Centers has a specific plan for selecting the HV program to which children and their families are assigned. Nurse-Family Partnership enrolls mothers during the prenatal stage. CHC triages all first-time families who have selected TCC as their child’s medical home and who are not already enrolled in NFP services into either HFA or HS. At the initial newborn weight check appointment, all families of newborns complete a new patient questionnaire, which includes demographic and family assessment information that determines whether the family is eligible for HFA or HS services.

Coordination of physician services with HV programs extends beyond the initial screening process. Coordination and communication between the home visiting program and the medical home is essential. All home visitors are co-located at TCC and are seen by families as an integral part of their healthcare team. Within TCC’s PCMH/HV integrated model, all children receive primary healthcare interventions. Behavioral health interventions are reserved for those families screening positive for mental health issues at service entry, identified with mental health issues at any time after services begin, or upon family request.
TCC has moved through the integration continuum as any medical home moving toward integration of the FCMH and a community's HV programs would. Their process has consisted of the following:

1. Compete. Home visitation and pediatric services exist separately of one another.
2. Co-exist. Healthy Families and Greenwood Community Children’s Center (GCCC) Pediatrics until 2001 with blended funding and shared administrative staff.
3. Communicate. Referrals to parenting services; joint use of parent library.
5. Coordinate. GCCC Pediatrics was sold to Carolina Health Center in 2001; home visiting is a co-located but legally separate nonprofit
6. Collaborate. Multiple legal agreements were put into place.
7. Integrate. There was a full merger of the PCMH and HV programs in August 2011, after a two-year pilot that started in 2009.

Consistent leadership of the merging organizations has been critical to the integration experience. Integration has meant that many things have changed for the primary care providers and home visitors. TCC has implemented the use of the same standardized measurement tools and screening tools across all HV models and within the pediatric clinical services. Co-location removes barriers to care. Shared use of electronic health records facilitate the identification, engagement and retention of families, the sharing of child and family service plans, and assist families in care coordination to other community resources.

Multiple benefits have been gained through TCC’s integration. Improvements have been created for individuals, providers, and systems, including improved communication and trust. Home visitors can reinforce provider's instructions and assist families with setting incremental steps to reach a health goal. The partnership has also led to greater efficiencies through reductions in risk factors that lead to chronic health conditions, reductions in cost due to decreased emergency department visits, and reductions in duplicated services. Integration has resulted in improved recruitment, engagement and retention of children and their families in HV programs and healthcare services.
Integration is not simple. The original vision for TCC set the stage for collaboration, but there was a limited understanding of the challenges and opportunities for improved care. Pediatric primary care and early-childhood home visitation typically function within two very different cultures. The most frequent barrier noted by medical providers has been concerns about impediments to patient flow because providers are under pressure to see as many patients as possible. Integration cannot hinder home visitors’ ability to provide the services of their national models with fidelity. Over time and with many service delivery strategy variations, the TCC team has learned how to accommodate the needs of families, medical providers, and HV providers.

The lessons learned through the merger have shown that integration takes time, can be complex, and requires flexibility and mutual problem solving. However, the benefits become clear, and baby steps toward successful child outcomes build momentum with individual providers. The TCC integration took place in August 2011; although it is successful, it is not a perfect system. Providers at TCC understand the need for a continual system of improvements. The system improvements are vast and have led to better care and coordination for the children and families affected by the integration of the PCMH and HV programs. Increased access and decreased barriers to healthcare and HV services has been an important system improvement that has resulted in stronger care for the children of TCC and their families.
Coming out of the improvement process, TCC has been able to create a seamless team approach to using medical providers, home visitation providers, and behavioral health providers. Based on this team approach, families hear consistent messaging, which has led to better use of services from all models. This team approach allows TCC to truly become the medical home for these patients, where needs can be met and everyone involved in care is on the same page.

**Applicability of the Model at the Children’s Center to Other Family-Centered Medical Homes**

The TCC integration shows that the PCMH and HV models can be successfully merged to create a truly all-encompassing medical home. In South Carolina, there are several current opportunities that help facilitate the application of TCC’s successes to the broader state model. Currently, South Carolina has the potential to spread both the individual program model interventions and the holistic model of integrated home visitation and primary health care through MIECHV program funding and expansion.

Under the recent MIECHV expansion, South Carolina secured additional federal funding to expand HV services to approximately 1,290 additional families and to add 40 new HV positions across the
This expansion would increase the areas served by 22 additional counties, bringing the total to 38. South Carolina MIECHV has made the integration of home visitation into primary care a priority and will use expansion funds to scale up existing MIECHV-funded integrated sites. It will also extend services to additional areas based on needs assessment and the readiness of pediatric providers for integrated systems building.

The successful model at The Children’s Center in Greenwood, South Carolina, can inform the process of integration in this state and beyond. The national landscape reveals that the country’s main pediatric health associations and the federal government have shown interest in creating a successful integration of primary care and home visitation. In addition to the federal funding given to South Carolina, $62.5 million in grants were awarded to 12 other states to expand MIECHV program activities funded by the ACA. Since the MIECHV program was enacted in 2010, it has been implemented in 544 communities across all 50 states, the District of Columbia, and five territories. The funding of the MIECHV program in all states demonstrates the great opportunity for expanding HV services across the country.

If integration occurs, the healthcare of our children will be significantly affected in a positive way. This will allow for stronger healthcare for children, starting with mothers in the prenatal age through young adulthood. This national interest in the integration of PCMH and HV models has the ability to positively affect our country’s early-childhood system. In fact, MIECHV grantees are encouraged to coordinate HV and related services at the state and local levels, moving toward an integrated early-childhood system. Too often, health systems are either ignored or minimally included in systems building efforts. The merging of HV services and primary care is an important step in creating an integrated early-childhood system that our country’s youngest children truly deserve.
Figure 5 shows the need for a community-based system of services for families of children and youth with special healthcare needs. This idea, which can be applied to all young children, is built on six central principles of care:

1. Being responsive to family challenges, priorities, and strengths
2. Developing a partnership with constituents
3. Being reflective and respectful of the family’s cultural norms and practices
4. Being universally accessible
5. Being affordable for those who require assistance
6. Providing resources that are equitably distributed through organized collaboration to ensure that care is delivered in an efficient, effective manner
In this service system, the medical home, mental health, and other medical services are part of a larger system of formal supports that connect with informal supports and services to create a community-based system of services that support the healthy development and well-being of young children and their families.

Investing in early-childhood development, which can be strengthened by the partnership of the family-centered medical home and maternal and child home visitation programs, builds the capital we need for economic success. Later remediation is less effective and more costly than preventing problems early in children’s lives. Therefore, social policy should be directed toward creating an encompassing and effective early-childhood system. This requires a major shift of policies to understand the life cycle of skill and health formation and the importance of the early years of children’s lives in creating inequality. Investing in early-childhood initiatives, such as the integration of PCMH and HV programs, has short-term and long-term benefits, including creating an effective work force, preventing chronic conditions, and lowering the costs of health and other care. The family-centered medical home is one way to combine all aspects of the family-centered, community-based systems of service. The integration of the patient-centered medical home and maternal and infant home visitation programs is just one piece of creating an early-childhood system worthy of our nation’s most valuable asset—our children.

Katy Sides is Director of Research and Grants at the Institute for Child Success and is Katy is a member of the Junior League of Greenville’s Community Project and Development Committee as well as a member of the Chamber’s PULSE program.

Notes

5. Ibid.
7. Ibid.

9. Ibid.


12. Ibid.

13. Ibid.


16. Ibid.


20. Ibid.


28. Ibid.
