INTEGRATION OF HOME VISITING AND THE FAMILY-CENTERED MEDICAL HOME:

A Case Study of Carolina Health Centers, Greenwood, SC

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It is well documented that early life experiences have profound effects on the brain and body that can last throughout the lifetime of a child.\(^1\) In addition to impacting physical health, these early childhood experiences also determine emotional and cognitive development. Scientists have discovered that early experiences as well as environmental influences can create a lasting impact on the genetic predispositions that affect emerging brain architecture and long-term health.\(^2\)

Toxic stress, the body’s most dangerous response to stress caused by strong, frequent, or prolonged exposure to stress caused by the lack of a supportive, adult relationship, creates disruptive impacts on children’s development that impact them through adulthood.\(^3\) In an analysis completed by the Center for Disease Control and Prevention (CDC) and Kaiser Permanente, the Adverse Childhood Experiences (ACE) Study links early childhood experiences of trauma to long term health and social consequences.\(^4\)

Specifically, separation or a lack of bonding with one’s mother has a significant impact on early brain development, which places children at risk of emotional and cognitive developmental delays. Research shows that intrapartum stressors as well as poor parenting can have lifelong impacts on infants’ health, development, and ability to learn.\(^5\)

In light of this research, scientists are now contending that development is driven, from the prenatal stage, through infancy, and continuing into childhood and beyond, by an ongoing interaction between biology and ecology.\(^6\) By considering development in a multidisciplinary framework, the basic science of pediatrics becomes understood as the combination of nature and nurture interacting over the course of time.

During the first 1,000 days of life, strong, stable, nurturing relationships are critical to healthy brain development.\(^7\) Researchers have found that positive parenting can buffer the negative impacts of toxic stress. Therefore, creating the right conditions in early childhood development creates long-term benefits.

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3. Ibid.
In response to the alarming concern over adverse early childhood experiences and the understanding that childhood development is a cross section of biology and ecology, the American Academy of Pediatrics (AAP) is promoting new techniques to prevent the adverse health outcomes now associated with early childhood trauma. These techniques will foster the positive conditions necessary for healthy growth and development. The AAP’s focus includes more extensive anticipatory guidance for families with young children, increased and improved standardized screening for developmental and social risks, and stronger linkages of pediatricians in a team-based approach with other professionals that provide early childhood services.

School readiness is one element of early childhood that illustrates the interaction of biology, ecology and health and development. As explained in the graph below, poverty; parent education, emotional health and literacy; lack of access and quality to health services; parents reading to children; appropriate discipline; toxic stress; and access to preschool can impact a child’s school readiness trajectory over time.

As ICS has previously contended, our future is inextricably tied to how well states, regions and our country work to foster the health, well-being, and education of the next generation.9 Child development is the foundation for community economic development.10 Investing in the social, emotional, cognitive and healthy development of children from birth to age five is where the greatest impact can be made towards improving the well-being of our children. It is less costly and more effective to try to fix the early childhood system than to fix problems later in life. By impacting the first 1,000 days of life, we can limit necessary treatments down the road.

Healthy brain development is most critical in infancy and the utilization of child health care is highest in infancy.11 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 health care use, including less likely to need to use emergency

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department facilities or have outpatient sick visits, and increased health-promoting behaviors, including reduced missed days of school due to illness or injury, family reading, sleep hygiene, health use and decreased screen time. The near universal reach of medical homes to child health care may result in significant public health impacts.

Through the development and utilization of protective interventions to protect children from adversity, society can help children live up to their potential. Home visitation integration with the family-centered medical home is a protective intervention that can impact the early childhood system.

Therefore, the Institute for Child Success (ICS) believes that a unified approach of medical and nonmedical services integrated in a medical home, provides a sound opportunity to build and fully nurture the supportive, responsive relationships within families that counter toxic stress and allow for strong early childhood development. For this reason, we present this case study of The Children’s Center of Carolina Health Centers, Inc. to evaluate how one South Carolina health system has been able to successfully integrate a pediatric medical home with evidence-based early childhood home visiting programs to build an early childhood system that benefits young children and their families within a medical home.

The example of integration of home visitation and pediatric primary care at The Children’s Center shows one way in which partnerships can be formed to impact the broader early childhood system. Traditionally, this system has been fragmented with a vast array of services for young children and their families. Many communities and states are working to address the gaps that exist within the system; the integration of the medical home and home visitation programs is one piece of the larger effort to improve the early childhood system. An early childhood system should provide a coordinated network of comprehensive services and support mechanisms that meet the overall health and developmental, safety and education needs of young children in culturally-appropriate ways. The comprehensive, coordinated, individualized, family-driven services and supports for young children and families that make up an early childhood system should include early care, early intervention, mental health, education, home visiting, child protection, family support, as well as social and concrete services for the child and other family members. Additionally, a successful early childhood system should also provide support to the families of young children through access to adequate housing, jobs, transportation, health care, parental support mechanisms, education and adult mental health services to optimize child outcomes. The ideal system reaches all children and families, as early as possible, with the services and supports they need; meets the requirements of care for children with special needs; is built around the strengths, needs, values, languages, cultures and communities of young children and families; provides stability and continuity among services starting in the prenatal period through school entry and beyond; creates easy access for families and transitions for children; values parents as decision makers and leaders; and maximizes investment and fosters innovation.

Used for prevention or intervention, home visiting (HV) is a service delivery instrument that has been used across many disciplines, from pregnancy through old age. Home visiting programs typically use either a professional or paraprofessional trained worker to provide services, guidance and information in an innovative way that eliminates many of the traditional barriers to service delivery.16

In the case of early childhood, HV is a service delivery strategy that reaches families as early as the prenatal stage or at the birth of a child or prior to school entry. Most of the early childhood home visiting programs target families and caregivers at high risk for poor health, development or economic outcomes; while some home visiting programs are universal, reaching all new parents. By targeting the development of parenting skills, most HV programs are able to address child health and development by reaching mothers, fathers, and caregivers.17

There are a range of home visiting categories within the early childhood sector that include maternal, infant, and early childhood HV; HV for children in at-risk families; as well as home visits as an integral part of child care or school-based educational programs.18

By being administered in the homes of families, HV programs provide culturally informed evaluation and support of children and families.19 Therefore, HV is a promising way to serve families who may be difficult to engage in supportive services. Existing rigorous research has shown that home visiting has the potential to create positive outcomes among high-risk families, particularly in the areas of health care usage and child development.20

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.21 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 among mothers and fathers.22

Home Visiting National Context

While home visiting has been in existence as a tool for service providers since the 1800s, maternal and child HV services have become a prominent part of the national policy conversation for the past five years. In February 2009, the American Academy of Pediatrics released a policy statement reaffirming home visiting as an intervention to enhance developmental, health, and

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17. Ibid.
19. Ibid.
21. Ibid.
safety outcomes for children and states. The AAP further stated that the integration of home visiting programs within pediatric medical homes has the potential to mitigate disparities in health and developmental outcomes for children from at-risk families.

A year later in February 2010, a grant award funded by the Children’s Health Insurance Program Reauthorization Act of 2009 (CHIPRA) was used to help create the foundation for a more responsive and effective national system of high quality healthcare for children. Specific indicators of quality in pediatrics are being field tested by grantees. While this project specifically targeted pediatric medical care, it has strengthened the argument for integration of early childhood home visitation within primary health care because of the common outcome measures that overlap pediatric indicators of quality and home visitation indicators of quality.

The AAP policy statement helped set the stage for the federal government to become involved in early childhood HV policy. 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.

Authorized and funded at $1.5 billion for five years, the MIECHV program represents a large investment in health and development outcomes for at-risk children through evidence-based home visiting programs. Most of the funding available under MIECHV is being provided to states to provide home visiting services in their at-risk communities. This program has created unprecedented opportunities to integrate early childhood services systems at the federal, state and local level. MIECHV can be credited with spurring the creation of more comprehensive and coordinated early childhood service systems across the country.

MIECHV was incredibly successful in its first two and half years. In September 2013 the US Department of Health and Human Services (DHHS) announced grants to expand the MIECHV program. These competitive grants were awarded to 13 states that have implemented a high-quality, evidence-based home visiting program as part of a comprehensive, early childhood system of care.

Prior to the launch of MIECHV, in the Fall of 2009, DHHS launched the Home Visiting Evidence of Effectiveness (HomVEE) review to conduct a thorough review of the existing home visiting literature and to provide an assessment of the effectiveness of home visiting programs that target pregnant women and/or families with children from birth to age five.

**Benefits**

Evidence-based home visitation programs are an important element of creating a quality early childhood system. While the benefits vary depending on the model implemented, high quality maternal and child home visitation programs can increase children's school readiness, improve

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24. Ibid.
25. Ibid.
27. Ibid.
child health and development, reduce child abuse and neglect, improve family economic-self sufficiency, improve maternal health outcomes, and enhance parent’s abilities to support their children’s healthy cognitive, language, social-emotional, and physical development.30

The HomVEE review produced assessments of the evidence of effectiveness for home visiting models and outcome domains that include child health, child development and school readiness, family economic self-sufficiency, linkages and referrals, maternal health positive parenting practices, reductions in child maltreatment and reductions in juvenile delinquency, family violence, and crime. There are 14 home visiting models the study identified as meeting the DHHS criteria for an evidence-based early childhood home visiting service delivery model.31

The HomVEE review concluded that most models had favorable impacts on the primary measures of child development and school readiness and positive parenting practices. The report also found that HV models produce cost savings longitudinally, with the greatest savings realized among those visited who were at greatest risk.32 Listed below is a summary of the findings of the HomVEE review by each domain.

CHILD HEALTH: The HomVEE report contended that since child health has significant influence over many of the other developmental outcomes, the vast majority of the home visiting models address child health in some capacity.33 For example, HV programs that start during a mother’s pregnancy have the goal of improving birth outcomes by connecting mothers to prenatal health care and providing knowledge on the development of their child during the prenatal stage. This information is continued after the birth of their child, by ensuring that children are given access to care, are attending appropriate well visits and immunizations, and receive medical care for injuries or illnesses. Additionally, some of the models inform parents about supporting physical health.

CHILD DEVELOPMENT AND SCHOOL READINESS: The HomVEE review determined that for some models, an important goal is the promotion of child development and school readiness.34 If this developmental domain is important, HV programs engage parents in activities designed to improve child functioning among many developmental areas, including providing parents with information about child development and strategies to enhance school readiness, and promoting positive interactions between parents and children. Some models also connect families with center-based early childhood care and education experiences.

FAMILY ECONOMIC SELF-SUFFICIENCY: Improving the self-sufficiency of participating families is a goal for some of the home visiting models in the HomVEE review.35 In order to help families reach this goal, the programs connect parents with educational and training programs, and help them in their pursuit of employment. Some models also help families gain access to family support services by providing information about services in the community.

34. Ibid.
35. Ibid.
and connecting families to self-sufficiency programs. Other HV programs may directly provide educational and training services.

**LINKAGES AND REFERRALS:** Another goal of some home visiting programs that the HomVEE review identified was the coordination with and referrals to other community resources and supports.\(^{36}\) The reviewers note that this may be a goal, even if such coordination and referrals are not an explicit model goal. Even when programs do not provide direct referral services, when families are frequently exposed to home visiting staff, an indirect result of educating or motivating participating families to seek these services on their own may be created.

For this domain only, the reviewers include outcomes measured at the provider level, in addition to at the family level. This is done because it is consistent with the benchmark areas in the MIECHV legislation, which include coordination and referrals for other community resources and supports.\(^{37}\)

**MATERNAL HEALTH:** While not necessarily a goal of all home visiting programs reviewed by HomVEE, improving maternal health is a goal of some models.\(^{38}\) If this is a goal, HV workers provide mothers with health information and guidance during pregnancy and after the child’s birth. Additionally, some programs may also link mothers to prenatal and postpartum health care providers, link mothers to treatment facilities, or directly provide preventive mental health intervention and services to promote the mother’s psychological well-being.

**POSITIVE PARENTING PRACTICES:** As noted above, most programs reviewed by HomVEE encourage positive parenting practices. Parenting education is often provided through either didactic or experiential approaches.\(^{39}\) The message delivery varies: some models use a structured curriculum while others are more flexible and address specific parenting needs that are identified during home visits. It is also possible that some HV models integrate specific parenting interventions or provide information to parents regarding child development or home safety practices.

**REDUCTIONS IN CHILD MALTREATMENT:** Some of the programs in the HomVEE review address prevention or reductions in child abuse and neglect. Young children are more likely than older children to be maltreated, so home visitors typically work with parents to improve knowledge, skills, and behaviors that are associated with prevention of child maltreatment.\(^{40}\) Additionally, programs may also work to decrease the numbers of stressors that may make families vulnerable to inappropriate parenting that can lead to maltreatment.

While there were impacts in all of the above developmental goals, it is worth noting that none of the models in the HomVEE review appeared to result in direct reductions in juvenile delinquency, family violence, and crime. The HomVEE review examined the research on 35 program models with studies published between 1979 and 2012. Of the four home visiting program models with studies that measured reductions in juvenile delinquency, family violence, and crime, none had favorable effects on primary outcome measures and 2 had favorable effects on secondary outcome measures.\(^{41}\)

\(^{36}\) Ibid.
\(^{37}\) Ibid.
\(^{38}\) Ibid.
\(^{39}\) Ibid.
\(^{40}\) Ibid.
The HomVEE review demonstrates that there are many benefits of evidence-based maternal and child home visiting programs. Included in the benefits of HV are child health, child development and school readiness, family economic self-sufficiency, linkages and referrals, maternal health positive parenting practices, and reductions in child maltreatment. Most maternal and child home visitation programs impact parenting skills and child health and development to ensure that children are on the right life trajectory course starting in early childhood. Home visitation programs can build upon medical care to give parents and caregivers the full appropriate developmental and health picture of their children and help families ensure that children are truly able to succeed. Together, home visiting and medical care are elements of a larger early childhood system that provides the services and supports that young children and their families need.

(introduction to the family-centered medical home)

The medical home concept is an idea that focuses on changing the way care is provided by putting the patient at the center of their medical care. The medical home provides a central place for patients to feel like they are a part of the care they are receiving. The idea of a medical home was originally developed in the 1960s and 1970s, and is identified by the U.S. Department of Health and Human Services (DHHS) Agency for Healthcare Research and Quality (AHRQ) as a promising way of revitalizing the nation’s primary care system in order to achieve high-quality, accessible, efficient health care for all citizens. The AHRQ commissioned a medical home research series because DHHS recognizes that medical home policy decisions must be based on sound evidence about whether this model of care can achieve the Triple Aim of improved patient outcomes, improved patient experience, and improved value.

The concept of the medical home was more fully defined by policy statements from the American Academy of Pediatrics (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). While PCMHs tend to describe care for adults and FCMHs tend to be for children, they both encompass the same idea of a medical home. In 2007, the modern medical home movement began when the Joint Principles for the PCMH were endorsed by the AAP, American Academy of Family Physicians (AAFP), American College of Physicians (ACP), and American Osteopathic Association (AOA).

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 is responsible for providing for all patient’s healthcare needs or taking responsibility for appropriately arranging care with other qualified professionals. This includes care for all stages of life: acute care, chronic care, preventive services, and end-of-life care.

- **Care is coordinated and/or integrated** across all elements of the complex healthcare system (e.g., subspecialty care, hospitals, home health agencies, nursing homes) and the patient’s community (e.g., family; public and private community-based services). Care is facilitated by registries, information technology, health information exchange, and other means to assure that patients get the indicated care when and where they need and want it in a culturally and linguistically appropriate manner.

- **Quality and safety** are hallmarks of the medical home.

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

- **Payment** appropriately recognizes the added value provided to patients who have a patient-centered medical home.

The patient-centered medical home integrates patients as active participants in their own health and well-being. Within this model, a physician 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 cares for patients. Similarly, family-centered medical homes provide comprehensive, coordinated, family-centered primary care that facilitates partnerships between patients, families, clinicians, and community resources and services. Typically in medical homes, there is teamwork within the practice, with nurses and other nonphysician personnel taking active roles in the health care of patients.

While some differences exist between PCMHs and FCMHs, there are many similarities. Specifically, in both models there is care coordination, in which physicians and other practice staff ensure that patients and families have access to the care they need in a timely fashion, that resources are used in the most appropriate way, and that there is as little duplication of

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46. Ibid.
effort among the care partners as possible. Similarly, in both PCMHs and FCMHs, there is a continuity of care across time and when the patient transitions from one form of care to the next. This ensures that adverse patient outcomes are limited and health care expense increases are minimized. Similarly, both PCMHs and FCMHs provide comprehensive care that reaches across the care spectrum from health promotion, resiliency building, and risk identification, to all levels of preventive care.50

Perhaps the most important similarity between the two models is that care is centered on the family and the community. Medical homes see patients and families as the consumer of the care they provide and therefore patients have a central role in the care they receive. To be effective, medical homes need to have coordination across the many community systems their patients are accessing as well as coordination among the many family units that are impacted. Equally important is that FCMHs and PCMHs provide compassionate care that is based upon cultural competence.51 Both FCMHs and PCMHs are located within the broader context of the community and population health movement that is based upon the basic understanding that health is determined by more than health care. As such, community and population health research focuses on health investments that must go beyond health care alone by investing in health environments in order to eliminate social and economic disparities and their impacts on health.52 This movement strives to create a positive culture of health that encourages individuals and institutions to encourage actions that are health promoting. Therefore, as part of this movement the medical home must put in place effective strategies to assure that there is a mutual understanding between them and the consumer about culture and language, as they affect health care and the well-being of the patient and their family. This requires the medical home to have meaningful communication, involvement and shared decision making with their patients.

Key Elements of a Medical Home for Child Health53:

- 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

50. Ibid.
51. Ibid.
Due to these many similarities, in this case study, we use FCMHs and PCMHs interchangeably. However, it is worth noting that there are key elements that should be included in a FCMH or PCMH, if the model is functioning as a child health medical home.  

**Background and Context of the Patient-Centered Medical Home**

Many have argued that in order to truly reform our country’s health care system, we need a robust system of primary care as the foundation of the system. The PCMH has become a policy model for rebuilding primary care capacity in the United States. It is for this reason that the PCMH is rapidly becoming a powerful engine driving multiple reform efforts related to health care delivery, reimbursement and primary care across the United States. Many believe that the PCMH is an innovative and exciting option that brings together core primary care principles, relationship-centered patient care, reimbursement reform, new information technology, and the chronic care model for the betterment of our society.

The care provided by a patient-centered medical home differs from the ways in which primary care is predominately delivered in that the PCMH is focused on providing comprehensive primary care. The medical home addresses two gaps in the primary care delivery system: providing care that is centered on the patient’s experience and integrating quality improvement practices into service. This is done to ensure that every patient receives the same opportunity to experience a complete and coordinated array of primary care services. There are many differences between the medical home and the traditional delivery of primary care services, including how care is administered, who is eligible for care, and how quality is tracked.

The national conversation on PCMHs was spurred by the 2004 American Academy of Family Physician’s “Future of Family Medicine” report that described the PCMH as a “new model of family medicine” that could revolutionize the way that family health care is provided. Following that, in June 2006 the National Demonstration Project (NDP) was launched by the American Academy of Family Physicians. This project ran for two years, through June 2008 to test the new model described by the PCMH. Within the NDP, 36 family practices were selected from 337 interested practices to test the PCMH as a model of care built upon a process of innovation at the local level. Overall, PCMHs have been endorsed by many in the health care arena, including all of the major national health plans, the American Medical

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54. Ibid.
55. Ibid.
58. Ibid.
61. Ibid.
Association, most Fortune 500 companies, labor and consumer organizations, as well as 17 specialty societies.\textsuperscript{62}

**Differences Between Traditional Primary Care and the Medical Home**

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<thead>
<tr>
<th>Today’s Care</th>
<th>Medical Home Care</th>
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<tbody>
<tr>
<td>Care is provided to patients who come to the clinic</td>
<td>Care is provided to all patients registered in the medical home</td>
</tr>
<tr>
<td>Care varies by clinician experiences</td>
<td>Care standards are evidence-based</td>
</tr>
<tr>
<td>Care is provided by a single clinician</td>
<td>Care is provided by a multidisciplinary team of medical professionals</td>
</tr>
<tr>
<td>Patients schedule specialty visits and are responsible for informing clinicians about content of those visits</td>
<td>Care is coordinated and tracked by the care team</td>
</tr>
<tr>
<td>Quality is felt, not measured</td>
<td>Quality is measured and continuously improved</td>
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Rittenhouse and Shortell (2009) contended that the patient-centered medical home is founded upon four interconnected cornerstones: primary care, patient-centered care, new-model practice, and payment reform.\textsuperscript{63} The PCMH is based upon the importance of primary care, which is comprehensive, first-contact, acute, chronic, and preventive care across the lifespan of a patient that is provided by a team of individuals. The team is led by the patient’s personal physician. The primary care component of the PCMH also includes care coordination across multiple settings and clinicians, which is an essential function of primary care. The second cornerstone of the PCMH is patient-centered care which requires the shift from viewing patients as passive recipients of information regarding their health to active, prepared and knowledgeable participants in their care. Within the PCMH, care is tailored to meet the preferences as well as needs of the patient. Patients are encouraged to participate in their care at all levels.

New-model practice is the third element of PCMH, in which evidence-based care processes are built upon innovations emerging from continuous quality improvement, patient safety,


\textsuperscript{63} Ibid.
accountability and transparency to move beyond old ways of doing business to provide the strongest care possible for patients. One of the key elements of the new-model practice is electronic clinical information technology to create coordination and efficiency, while improving health outcomes. The final cornerstone of the patient-centered medical home is the reform of the payment structure. The payment structure of the PCMH is intended to provide compensation for care coordination, care management, and medical consultation outside of the traditional visit, built upon face-to-face interactions.

There have been many studies and demonstrations on the applicability, success, and cost of PCMHs. Research has demonstrated that when primary care is emphasized in health systems, patients experience better outcomes at lower costs. The American Journal of Managed Care, among many others, evaluated the redesign of a medical home into a patient-centered medical home. In the results of their study, in 2009, Reid et al. determined that compared with control clinics, PCMH patients had a better patient experience, improved quality, and PCMH staff experienced less burnout at 12 months. Further, the researchers concluded that at 12 months, there were no significant differences in the overall costs of primary care services between the PCMH and control clinics. They found that despite the significant monetary investment necessary to redesign a primary care clinic into a patient-centered medical home, the costs were recouped in the first year.

Following the emergence of the PCMH as a national concept to improve health care, the National Committee for Quality Assurance (NCQA) developed a recognition process that involves three levels in their Physician Practice Connections-Patient-Centered Medical Home tool. The recognition process can be accomplished in 3 years. The NCQA Patient-Centered Medical Home Recognition is the most widely-used way to transform primary care practices into medical homes.


65. Ibid.
66. Ibid.
Amidst the research and enthusiasm for the model of the patient-centered medical home, there has been a rapid increase in the number of practices that are being becoming PCMHs. As of April 2014, there were more than 7,100 PCMHs recognized through the NCQA program.

**Benefits**

There are many benefits of the patient-centered medical home. The implementation of this model is promising for overall health care reform as it is a means to attaining broader goals of a reformed system that promote the interests of the patient as an individual to be communicated with, rather than a case to be managed.68 The PCMH betters the experience of the patient experience by improving their access to care and better matching their needs and preferences with the care they receive.69

The PCMH creates benefits beyond those realized by the individual patient. This model results in cost savings that are advantageous for the patient, the doctor, the health system and society as a whole. For physicians, the patient-centered medical home improves the quality of care they can deliver, while reducing the administrative burden they experience.70 It allows for the appropriate utilization of services, which reduces costs, maximizes physicians' time, and helps the patient receive the health care they most need.71

From the health system and societal perspective, the PCMH results in unnecessary use of an emergency department and inpatient hospitalizations. This reduction ensures that those resources are used for those who most need them. Additionally, society can gain increased quality of life for patients, through the reduction of lost work or school days as well as their families in decreased stress.72

**Unique Issues When Addressing Child Health Care**

Within the FCMH, there are several unique considerations for the delivery of child health care services.73 Children experience many developmental changes, so child health care within the FCMH must be a resource that enhances children’s upward developmental trajectory. As children grow and experience these developmental changes, their care coordination needs change as well. Within adult care, developmental services often focus on regaining lost skills. It is essential that developmental services focus on maximizing children’s potential and independence. This is a large departure from how developmental care is typically provided within our health system. Similarly, the evaluation of child health care delivery within the FCMH must include both functional and developmental outcomes. Child health care within the FCMH requires flexibility so that it can change as children grow and develop.

The issue of dependency also makes care provided to children within the FCMH different from the typical care provided within a medical home. Children depend on their parents and other adults in their community for their care giving. As such, parents are critical partners in a child's care. Therefore, FCMH service provides must understand that there needs to be

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69. Ibid.
70. Ibid.
72. Ibid.
73. Ibid.
a broad clinical focus on the whole family. Coordination and collaboration extends beyond the family as well, to the entire childhood system to include early education and child care, schools, and families as key partners in the delivery of child health and development care. Therefore, it is essential that the health and functioning of families are included with the services, supports and evaluations of the FCMH as children have very little autonomy in their health care.

Children also have differential epidemiology than adults. Children tend to be healthy in contrast to the adult population. This requires that care within the FCMH be focused on primary and secondary prevention strategies. For child health care, prevention is key, especially among the most common conditions impacting children: obesity, asthma, and behavioral health conditions. Physicians must utilize a large portion of their resources and time to collectively manage children’s conditions with subspecialties.

A final unique consideration for child health care within the family-centered medical home is demography. There are disproportionately high rates of poverty for children (23% of children are in poverty in the US; 27% in South Carolina), which means that children are particularly vulnerable to poor health status and poor quality of care. Therefore, addressing racial, ethnic and socioeconomic disparities must be a priority in child health.

The unique conditions of children make the delivery of their health care different and challenging from the typical role of the physician within a PCMH. However, the family-centered medical home allows physicians to work within these challenges to make child health and development care more individuated and family-driven.

(why should home visiting models and patient-centered medical homes collaborate?)

The identified benefits of home visiting and the patient-centered medical home, in conjunction with the national interest in these types of service delivery, seem to make them a natural fit. By coming together, it would appear that HV and PCMHs could create stronger outcomes for child health. The patient-centered and empowered care that the PCMH delivers and the family strengthening outcomes that the HV models promote are extremely compatible. Therefore, 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 as well as to reduce disparities in health and health care. There are many benefits that can come from a meaningful partnership of the PCMH and HV models. One such benefit is the elimination of traditional silos that

74. Ibid.
75. Ibid.
typically define health delivery systems. These partnerships can negate fragmentation in terms of both financial silos and organizational and informational silos. 

By bringing together the FCMH and the community, through HV programs, personal and population approaches to health and health care delivery will become integrated. This allows health care to become more about optimizing each child’s and family’s life course trajectory, improving outcomes and reducing costs than the current system allows. The benefits found in the utilization of PCMHs are only amplified by coordinating the medical home with home visiting models.

As mentioned earlier, in trying to bring care to the individual level, children’s medical homes face unique challenges that general medical homes do not have to consider. Specifically demographic patterns, including the high rate of poverty among children, require a special type of health care delivery. In order to meet these challenges, the FCMH should utilize evidence-based interventions, specifically HV programs. Home visitors are able to reach cultural competence and situation awareness at a level that is beyond the abilities of a traditional PCMH. By bringing these two models together, having supported collaboration between the interventions and the FCMH, and having HV team members as a part of the

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FCMH, medical homes can more fully reach their goal of care that is truly centered on the child and preventative in nature.  

By utilizing a two-generation approach in the integrated family-centered medical home, toxic stress risks can be minimized and the cultural considerations identified above can be brought into care. The health and well-being of a child is directly influenced by the health of their family. Therefore, many practices are beginning to use a two-generation approach to fostering the healthy development of children. A two-generation approach enables families with young children to improve economic security, mobility and success. These approaches have a core focus on the education and workforce skill development of the parent, and on the learning and development of the young child being parented. The ultimate goal of a two-generation strategy is to break the inter-generational cycle of poverty, moving the family toward economic security and stability. Parents experiencing complex or stressful life circumstances (including maternal depression, unstable housing, and social isolation among others) face challenges that make providing care for their children difficult. These “social determinants” of health are essential to providing coordinated health care. Many physicians understand this, as in a recent survey four out of five physicians indicated that it is as important to meet their patients’ social needs as it to address their physical health.

An example that illustrates the need for a two-generation approach to care that includes addressing the impact of social determinants on health is a study examining utilization of mental health services for mothers with low incomes. In this study, the researchers determined that low-income mothers resent being labeled with mental health diagnoses. They feel that their mental health status is a normal reaction to the external stressors they are facing, including financial instability or social isolation. They believe that these diagnoses imply their distress is generated internally. The remedy is improved life conditions, not treatment. They further believe that professionals do not have comparable or sufficient life experiences to understand their situations. Further, they often believe that professionals do not have a commitment to help them obtain the support and resources they need. Professionals must understand this perspective and communicate accordingly to best overcome the social determinants families

are facing to allow for optimal care for children. Therefore, the integrated PCMH and HV model allows home visitors and physicians to communicate effectively to parents regarding their cultural and medical situation in a way that parents will listen. In the team approach created in an integrated PCMH and HV model, parents and children can receive the services they need. By creating a two-general level of care, parents can get the help they need so that their attention can focus on children receiving the health and developmental care they need.

**Similar Goals**

There are many similar goals of HV programs and FCMHs. By bringing these groups together, their ability to reach these goals becomes stronger. Both models provide parents with health, development and safety education as well as create linkages to community services and are a source of social support. The strongest goal they share is to promote the healthy development and well-being of children and their families. Both HV models and FCMHs provide their child patients and their parents with anticipatory guidance and developmental surveillance to identify any emergent child delays and/or parent concerns. Additionally, both FCMHs and HV programs work to create a long-term relationship with the families of their patients by building trust and providing family friendly support. A final similar goal of these two services is to provide children and families with access to community resources, connections to formal and informal family supports and assistance with problem-solving skills.

Beyond their shared goals, the partnerships between home visiting programs and patient-centered medical homes can create greater efficiencies as there is a natural synergy that exists. HVs and PCMHs have complementary and synergistic skill sets that are further impacted by partnerships. By working together, PCMHs and HV programs can decrease duplication and eliminate mixed messages to families. In collaboration, HVs and PCMHs discuss the care needed for patients and the families hear the same message from all of their caregivers. The partnerships are likely to result in home visitors and medical home providers better understanding patients’ and families’ needs and preferences, and more directly address their concerns. Therefore, partnerships allow for improved communication between primary care providers (PCP), HVs and families.

In addition to patients and families hearing consistent messaging, integration allows for a reinforcement of similar health priorities. Research shows that as families hear the same health priorities being discussed by their PCP and home visitors, they have fewer missed visits, fewer sick and acute care visits, decreased hospitalization, decreased abuse and neglect,
and improved involvement and retention in early intervention programs. Because families are more likely to use health services when they believe that the services will meet their needs, communication between PCMH clinicians and home visitors regarding the specific needs of the patients is likely to result in more preventive care use and better retention in HV programs. By having more effective utilization of services provided, the overall system experiences a decrease in costs.

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 transition 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 nutrition/living condition needs and performing environmental and safety assessments
- Reinforcing injury prevention strategies
- Improving identification, treatment and prevention of parental depression
- Overseeing and assisting provision of complex health care in the home of children with serious ongoing health conditions and helping to balance the needs of the affected child with those of other family members
- Identifying needs for equipment for special needs and for implementing prescribed care in the least disruptive manner
- Educating medical students and residents in the benefits of HV services

The synergies that exist between PCMHs and HV programs allow partnerships to truly impact health care delivery in a meaningful way. Beyond impacting the individual receiving care, the partnership between patient-centered medical homes and home visiting programs can create reductions in disparities of health and health care. The integration of home care activities into a system of high-quality well-child care, such as the FCMH, has the potential to promote child health and well-being and reduce disparities in health and health care. Further,

92. Ibid.
94. Ibid.
research has found that these partnerships can improve the quality of health care delivered to those impacted by the coordination.95

**The National Context on Integration**

The shared goals, greater efficiencies and reductions in disparities of health and health care show that there are many benefits of partnership between HV models and the children’s medical home. The MIECHV program has underscored the potential impact of these collaborations. The AAP argues that by pairing a strong early childhood system, which includes partnerships with the pediatric community and the large-scale implementation of evidence-based home visiting models, the MIECHV program has the potential to have significant impacts on public health and the well-being of children and families.96

The national context is an important consideration in the partnerships between home visiting programs and patient-centered medical homes. From a practical standpoint, partnering makes sense in an ever-changing medical field. Due to changes within the health care system in the United States, many health care providers are facing stronger demands for accountability. The AAP believes that interest in home visitation and other community health programs is increasing because these programs are seen as a way to meet the rising population quality accountability measures.97

Further, other national considerations currently make collaboration a strong priority. There has been recent investment in HV programs and an emphasis on the FCMH through the Affordable Care Act of 2010 (ACA). Two of the leading pediatric associations in the United States, the AAP and the American Pediatric Association (APA), have endorsed collaboration between home visitors and primary care providers as a unique opportunity to integrate and improve services provided to children and families.98 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.

In 2012, the Institute for Medicine weighed in on the collaboration of HV programs and PCMHs. They produced the report Primary Care and Public Health: Exploring Integration to Improve Population Health in which a continuum was explained that put together degrees of primary care and public health integration. Further, the article argued that now the time is right for action because there is growing recognition that the current model of investment into

> Now the time is right for action to integrate home visiting programs with the Family-Centered Medical Home because the current model of investment into primary care and public health in the nation’s health system is unacceptable.

- Institute of Medicine of the National Academies Committee on Integration of Primary Care and Public Health

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98. Ibid.
primary care and public health in the nation’s health system is unacceptable.\textsuperscript{99} The dramatic increasing rise in health care costs has resulted in many stakeholders exploring innovative ways of reducing costs and improving health of children and adults in America.

The continuum of integration between the patient-centered medical home and home visiting goes through several stages.\textsuperscript{100} Moving from isolation to integration, the first stage of the continuum is the stage of mutual awareness, in which home visitors and primary care providers know that each other’s programs and practices exist within the community. The next stage is cooperation in which the home visitors notify the FCMH about their HV enrollment and services, and FCMH professionals do the same about their services with HV programs.

Halfway through the continuum is the stage of collaboration, in which the two entities begin to work together. Typically, a HV-FCMHG shared registry of patients is created and they begin sharing information with one another. A more formal step is the creation of a partnership. Within this stage there is typically a formal delineation of services and responsibilities,
communication that flows in both directions, and periodic review of cases between the FCMH and home visitors. The final stage in the integration continuum is the merging of systems. This process results in the co-location of space, integrated electronic records, and shared assessment and responsibility for outcomes.

**Unique Situation in South Carolina**

There are unique opportunities within the Palmetto State that expand upon the national enthusiasm of merging family-center medical homes and home visitation programs. As described in the national context, the field of evidence-based home visitation is growing with the infusion of MIECHV federal funds. At the same time, the pediatric profession is field testing national indicators of quality. Many of outcomes being tested and measured for pediatric care are shared by the MIECHV home visitation programs. South Carolina is one of the states in the pediatric project and one of the 13 states to receive MIECHV expansion funding.

The Children's Trust of South Carolina is the lead agency for the South Carolina MIECHV project. Their original MIECHV formula funding supports the Family Check Up, blended Healthy Families America/Parents as Teachers, Healthy Steps, and Nurse-Family Partnership home visitation models. Most of these programs serve at-risk, low-income mothers and provide skills in maternal and child health, positive parenting practices, safe home environments, and access to services. They fund seven catchment areas serving 21 counties. Healthy Steps is the one MIECHV approved home visitation model that must be provided in partnership with pediatric health care. The state of South Carolina received roughly $7.2 million in the 2013 MIECHV expansion grants to expand home visitation work in the state. The Children's Trust has deliberately chosen to take advantage of the South Carolina pediatric project to encourage integration of home visitation into pediatric medical homes. With the award of MIECHV expansion funds, the Trust will add seven new pediatric providers to the existing two pediatric providers utilizing the Healthy Steps model of home visitation. Many pediatric providers will provide Healthy Steps services in multiple sites. A priority of the MIECHV expansion project is to bring the early childhood home visitation systems and the pediatric system together to amplify a collective impact. Therefore, the Children's Trust of South Carolina is working to build a quality system that provides a continuum of programs available to serve at-risk families and children at various stages of need.

**Why Does Collaboration Not Always Work?**

It is worth stressing that while there is national and state interest in merging home visiting programs and the family-centered medical home, it often presents challenges. Integration of HV programs and the FCMH is not an easy task and there are many reasons collaboration does not always work. One of the most essential elements needed for integration is communication. Unfortunately, coordination, communication, and linkages between HV providers and the FCMH are often suboptimal. As to be expected, there are many barriers to communication. HV programs and FCMHs are used to being separate and while these models tend to have similar goals, they have different ways of speaking, different cultures and different ways

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of reaching those similar goals. Further barriers to communication include inconsistent methods and timing of communication and inadequate content of communication.\textsuperscript{104} Many home visitors and physicians are concerned that by integrating, it is possible that families will be made intermediaries between HV and PCP providers. Providing optimal care for the families and children is what drives integration and if there are concerns that the families could be compromised in anyway, integration could not work. There is also often concern over possible confidential information being disclosed between HV and PCP providers if a partnership occurs.\textsuperscript{105}

Similarly, there is often a lack of mutual awareness. Many medical home clinicians are not aware of which HV programs operate in their communities and what is involved in those home visiting programs.\textsuperscript{106} While the ACA provides opportunities for integration, it also places unprecedented demands on physicians that further limit their ability to link with HV programs. When communication is lacking, it is only natural that there would be limited knowledge of the services provided by home visitors. While there is much excitement about possible integration among HV and PCMHs nationally, there are few financial incentives or reimbursement structures to encourage merging.\textsuperscript{107} Integrating HV and PCMHs requires financial resources and without available funding to help offset the costs, it can be difficult for practices to merge.

Integration can occur between home visitation programs and family-centered medical homes and can be successful. Integration of these two programs can ensure that children and their families receive the best care possible. The similar goals and natural synergy between HVs and PCMHs make integration very appealing. Nationally and in South Carolina there is much interest in creating a truly all-encompassing medical home. In order for full integration to be successful, the home visitation program and family-centered medical home must be willing to work collectively to improve their patients’ care. Core principles for integration include common goals, involvement of the community in addressing needs, and strong leadership.\textsuperscript{108} Generally, there are overlapping goals of HV and PCMHs. Bringing in the community and harnessing strong leadership are challenges for integration. However, if those elements can be brought together, HV programs and PCMHs can move through the continuum regardless of where they begin the process.

\textbf{(the children’s center of the carolina health centers, inc.)}

Without intentional infrastructures to support collaboration, there are many challenges that prevent the full effectiveness of either medical or nonmedical interventions. However, if home visiting programs and the patient-centered medical home are able to successfully implement the core principles of integration, the merging of these systems can drastically impact the type of care that children and their families receive. One example of this is taking place in Greenwood, South Carolina at The Children’s Center of Carolina Health Centers, Inc. Their 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. In Carolina Health Center’s work with the national leaderships of home visitation and medical organizations, it is clear that leaders in both fields are aware that true partnerships between HV and the PCMH are rare. With so much attention on merging

\textsuperscript{105} Ibid.
\textsuperscript{106} Ibid.
\textsuperscript{107} Ibid.
\textsuperscript{108} Ibid.
nationally, there is a need to focus on effective models of integration. These models can provide examples of success, pitfalls to avoid and considerations to be evaluated as home visitation programs and family-centered medical homes move along the continuum of integration.

The Children’s Center, Greenwood, South Carolina

The Children’s Center was incorporated as the Greenwood Community Children’s Center (GCCC) in 1996 to provide a stable medical home for the children of the greater Greenwood area. Its concept statement read: “Because of the many negative social forces impacting on the lives of today’s children…an effective medical home must address needs beyond the traditional services of a pediatric clinic. GCCC will link non-traditional children’s services to standard pediatric services. The Center will strive to build links with other agencies serving families in Greenwood, including the public and private schools, health department, public and private social agencies and the churches. The Center will encourage families to connect with the support structures in the community.” Eighteen years later GCCC has evolved into The Children’s Center of Carolina Health Centers, Inc.

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 over 30 years. Their service area is rural and has a large low-income white population. The counties served by CHC are Greenwood, Laurens, McCormick, Abbeville, Saluda, Edgefield, and Newberry. Established in 1978, CHC has grown steadily through the years and currently serves over 25,000 patients. They are committed to removing barriers that prevent people from receiving necessary primary and preventive health care services. In order to provide care to residents in the seven-
county area, CHC operates nine family practice offices, two pediatric offices, a school-based health center and two pharmacies.

The Children’s Center (TCC), located in Greenwood, South Carolina, serves over 8,000 children annually. Most of the children in CHC’s service area come to the pediatric site, which is where the home visitation programs are administered. This pediatric medical home has been designated a Patient Centered Medical Home by National Committee for Quality Assurance. TCC’s pediatric site is the primary site of integrated care of their home visiting and patient-centered medical home framework. Through shared administrative oversight and dedicated leadership, the home visitation services and pediatric medical home have been able to reduce the challenges and practical realities that often impede meaningful collaboration to improve outcomes for their patients. The model of integration for TCC is based upon using the medical home as the natural point of contact and as the “hub” for ongoing service delivery. The medical home facilitates the delivery of intervention(s) to mothers and newborns, including those with private insurance, those in South Carolina’s Medicaid Program, those with no insurance and those that are non-citizens, who are located in a seven county rural setting (Greenwood, Laurens, McCormick, Abbeville, Saluda, Edgefield, and Newberry counties).

The Children’s Center staff now includes four full-time pediatricians and one full-time and three part-time nurse practitioners. Additionally, with MIECHV expansion funding this year, they will have a large staff of home visitors: four nurse home visitors with Nurse-Family Partnership, two professional home visitors with Healthy Families America/PAT, and four Healthy Steps Specialist home visitors. Additional infrastructure includes one administrative assistant, one Clinical Supervisor, one Program Manager/Clinical Supervisor and one Director of Patient and Family Support Services. TCC has a partnership with the local mental health agency to also have one child behavioral health counselor on-site. A Care Coordinator serves school age children and younger children that are not in one of the home visitation programs. This staff collectively makes up the personnel of TCC.

CHC has a new pediatric site, Hometown Pediatrics, in Laurens County. Hometown will become a second integrated site with MIECHV expansion of the Healthy Steps home visitation program. Hometown has one full-time pediatrician and one part-time nurse practitioner and one Healthy Steps Specialist home visitor.

The work of the Children’s Center and Hometown Pediatrics staff to integrate the PCMH and HV program models capitalizes on three standards. The first is that families perceive the medical home as a trusted source of information; the second is that the medical home is a natural point of contact to engage all families, even hard to reach families; and the third is that families often need to hear consistent health messaging from medical professionals as well as from nonmedical professionals in order to change behaviors. This integrated model of care ensures that TCC physicians, home visitors, and staff provide the best care possible for the children of their seven county service area and their families.

The Children’s Center Model capitalizes on:

1. The perception of families 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 medical professionals as well as from nonmedical professionals that is necessary to change behaviors.
TCC’s integrated system enables them to meet the needs of the 40 - 60 newborns that TCC enrolls each month. (TCC has had as many as 80 newborn patients in one month.) This system 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 that are at moderate risk and those that need universal preventive education and skills development. TCC runs a continuum of programming, so they are able to triage families into the service intervention that best meets the needs of the individual family for service intensity and/or duration. By integrating their HV programs with the primary health care services, TCC reduces typical barriers that have slowed access to evidence-based care, allows families to be triaged into the model that best fits their individual needs for intensity and/or duration, and reduces the practical barriers that can limit meaningful collaboration between pediatric providers, behavioral health providers, and home visitation providers. Both the home visitation providers and the medical providers have been rigorously trained in the Institute of Health Continuous Quality Improvement process. They function as a team to improve quality indicators in both disciplines – the pediatric care and the early childhood home visitation services.

The Children’s Center Continuum of Care

**NFP, HFA, and HS home visitors encourage use of primary care physician services at TCC.**

**Healthy Steps**

**TCC doctors support the use of home visitation services offered through CHC.**

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**Home Visitation Services at The Children’s Clinic**

The Children’s Center provides multiple models of evidence-based home visitation integrated within primary health care that are all part of the MIECHV policy initiative. The primary goal of all their HV programs is to promote healthy child growth and development through responsive and responsible parenting. TCC hosts three home visitation models: Nurse-Family Partnership, Healthy Families America and Healthy Steps for Young Children. Healthy Families home visitors are cross trained in the Parents as Teachers home visitation model.
**Nurse-Family Partnership**

The target population of Nurse-Family Partnership (NFP) is pregnant women and children from birth to two years of age as it is a maternal and early childhood health program that fosters long-term success for first time moms, their babies, and society. NFP's service objectives, as identified in the HomVEE review include: maternal health, child health, child development and school readiness, reductions in child maltreatment, reductions in juvenile delinquency, family violence, and crime, positive parenting practices, and family economic self-sufficiency.109

The HomVEE review found that Nurse-Family Partnership had favorable impacts in seven of the eight reviewed domains (child development and school readiness; child health; family economic self-sufficiency; maternal health; positive parenting practices; and reductions in child maltreatment).110 The review found that at least one impact in all seven of these domains was replicated in another study sample, was sustained at least one year post program inception, and lasted for at least one year post completion. The HomVEE concluded that the evidence indicated that NFP had unfavorable or ambiguous findings in five of the domains (child development and school readiness; child health; linkages and referrals; family economic self-sufficiency; and reductions in juvenile delinquency, family violence, and crime).

The Children’s Center current capacity is to serve 75 families in a five county service area for Nurse-Family Partnership. With expansion funding, they are expecting to add one additional nurse home visitor and 25 families to their capacity. As NFP serves children up to age two, this model serves most of the prenatal families referred for home visiting at TCC. The Center reserves the ability to place prenatal families in the Healthy Families model if there is an identified clinical need for higher intensity or longer duration of services. This flexibility in a continuum of home visitation programming is an essential benefit for effectiveness and efficiency.

**Healthy Families America**

Healthy Families America (HFA) strives to provide expectant and new parents with the opportunity to receive the education and support they need at the time their baby is born. The target population of HFA at the Children’s Center is first time parents, consumer of The Children’s Center pediatric services, resident of Greenwood or Abbeville County, mother of the baby with less than a high school education and/or with one or more of the following family characteristics:

- Lack of adequate prenatal care
- Abortion or adoption considered upon knowledge of pregnancy
- Use of alcohol or illegal drugs during pregnancy
- Depression, anxiety or other mental health issues
- Presence of interpersonal violence

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Services may be engaged prenatailly or upon the birth of a child and continue until the child is three years of age. Services may be continued for an additional two years when special circumstances regarding the health and/or safety of the child are present. The service objectives of Healthy Families America, as identified by the HomVEE review, include child health, child development and school readiness, reductions in child maltreatment, positive parenting practices, family economic self-sufficiency, and linkages and referrals.\textsuperscript{111}

The HomVEE review concluded that the Health Families America model had favorable impacts in all eight domains they reviewed (child development and school readiness; child health; family economic self-sufficiency; linkages and referrals; maternal health; positive parenting practices; reductions in child maltreatment; and reductions in juvenile delinquency, family violence, and crime).\textsuperscript{112} The report concluded that findings in child development and school readiness, child health, family economic self-sufficiency, positive parenting practices, and reductions in child maltreatment were replicated in at least one other study sample. The available evidence indicated HFA had at least one unfavorable or ambiguous finding in three of the reviewed areas: child health, family economic self-sufficiency, and linkages and referrals.

The available evidence of the HomVEE report indicated that at least one favorable impact in all eight domains was sustained for at least one year after program inception and at least one favorable impact in two domains (child development and school readiness and reductions in child maltreatment) lasted for at least one year following the completion of the program.

Currently, The Children's Center has the capacity to serve 50 families in a two county service area (Greenwood and Abbeville Counties) through HFA. HFA is a unique home visitation program, because the program can continue for the family up to age five of the child. At TCC, HFA services are currently reserved for those families needing the greatest intensity and longest duration of home visits.

**Healthy Steps for Young Children**

Healthy Steps for Young Children (HS) focuses on the importance of the first three years of life by emphasizing a close relationship between health care professionals and parents in addressing the physical, emotional, and intellectual growth and development of children. Their target population is children birth to 3 years. The service objectives of HS as identified by the HomVEE review include child health and positive parenting practices.\textsuperscript{113} The review concluded that HS had favorable impacts in two domains (child health and positive parenting practices).\textsuperscript{114} The available evidence within HomVEE led the reviewers to conclude that at least one favorable impact in positive parenting practices was sustained for at least one year after program inception, but none of the impacts lasted for at least one year post program completion or was replicated in a second study sample.

The previous capacity of The Children's Center was to serve more than 120 families with children up to age three, in a five county service area. TCC’s HS program will change significantly with expansion funding. First, they will be able to add two additional Healthy Steps specialists serving 120+ families at TCC and one Healthy Steps specialist to serve 60+ families in Laurens County at Hometown Pediatrics. Additionally, with expansion, their target population will change from all first time families utilizing The Children's Center pediatrics to all families with newborns utilizing TCC.

This expansion will greatly enhance the impact of home visitation at TCC. One of the lessons that TCC home visitation programs have learned about working with medical providers is that the more universal the service delivery, the greater the collaboration from the providers. The demographics of non-first time families utilizing TCC health care would justify home visitation services based on the MIECHV priority populations.

**How are Children Assigned to Home Visitation Models at TCC**

Carolina Health Centers has a specific plan for selecting the home visitation program children and their families are assigned to. Nurse-Family Partnership (NFP) enrolls mothers during the prenatal stage. It is open to families that use a variety of medical care and is not exclusive to CHC medical providers. NFP is restricted to first time, low income families that must be enrolled prior to 28 weeks gestation according to the national model guidelines. If there is a clinical reason to provide higher intensity or longer duration of home visitation services and the families reside in the funded service area for Healthy Families, the families can be enrolled in Healthy Families programming instead of NFP. This is typically fewer than two percent of the HFA caseload however.

CHC triages all first time families who have selected The Children’s Center as their child’s medical home and that are not already enrolled in Nurse-Family Partnership services into either the Healthy Families America program or into Healthy Steps for Young Children program.

At the initial newborn weight check appointment, all families of newborns complete a New Patient Questionnaire. The Questionnaire has demographic and family assessment information that determines if the family is eligible for HFA or HS services. A backup strategy allows the screen to be completed at the two week well child visit if families are missed at the weight check visit. This procedure is followed unless the target child is admitted to NICU or has been given other specific discharge directions. Upon release from NICU, families are seen at TCC within 2-5 days and the screen process is followed at that time. The triage screen process is shown below.

Coordination of physician services with home visitation programs extend beyond the initial screening process. Medical providers of The Children's Center may also use internal email, electronic health record alerts, and/or face-to-face interactions to re-refer families to home visitation programs when families initially decline an assessment or services and then later decide that services are desired.

Coordination and communication between the home visiting program and medical home is essential. Home visitors for all three programs are co-located at The Children's Center and are seen by families as an integral part of their health care team. The New Patient Questionnaire is reviewed and the appropriate service provider makes a face-to-face offer of the home visitation services at the two week check appointment. Clinical staffings are utilized to determine if a reassessment of family needs and/or a change in the service model is warranted.
The Patient-Centered Medical Home at The Children’s Center

The medical care provided to patients and their families at The Children’s Center is offered in a patient-centered medical home setting. They provide primary medical care interventions using the PCMH standards and Bright Futures guidelines. In addition to providing primary medical care, there are co-located evidence-based behavioral health services at TCC that are built into both the home visitation and pediatric services through a contractual agreement with Beckman Mental Health. These behavioral health services will soon include trauma-based cognitive behavioral therapy and Parent-Child Interaction Therapy.

Within the PCMH/HV integrated model at The Children’s Center, all children receive the primary health care 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, and upon family request.

In addition to primary medical care, the PCMH of TCC also provides Reach Out and Read services (ROR). This is a universal service for all families at TCC as well as an integral part of all three home visitation programs. (ROR is an evidence-based program that is the most
studied, proven pediatric primary care intervention.)

It promotes early literacy and school readiness in pediatric exam rooms nationwide by giving new books to children and advice to parents about the importance of reading aloud. TCC provides ROR services for all children ages six months to five years at TCC Pediatrics. This intervention is administered by both home visitors in office and home visits as well as staff in waiting rooms and health care providers. Staff model reading activities while health care providers counsel parents about the importance of reading. They distribute free children’s books to patients, who typically receive nine to ten books over five years. Home visitors routinely add literacy coaching to home visits and provide additional books for the young child's home library. Home visitors are trained in literacy strategies and books are frequently selected to provide positive parent-child interaction activities as well as for the educational messaging of the books. For example, there are books that focus on healthy food choices.

The Children’s Center Integration of Home Visiting Models and the Patient-Centered Medical Home

The pediatric practice of Carolina Health Centers, The Children’s Center has been working to fully integrate evidence-based early childhood home visitation into a system of high-quality well-child care since 1999. The PCMH has three elements: home visitation as a component of primary care, care coordination as a component of primary care, and behavioral health as a component of primary care.

The Children’s Center Model of Care

Chart adapted from Carolina Health Centers, Inc.

The Children's Center has moved through the Integration Continuum as any medical home moving towards integration of the FCMH and community's home visitation programs would. Their process has consisted of:

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
4. Cooperate – limited shared parent education classes; shared service plan for high risk families identified with crisis
5. Coordinate – GCCC Pediatrics sold to Carolina Health Center in 2001; Home visiting co-located but legally separate non-profit
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 two merging organizations has been critical to the integration experience. Sally Baggett, Program Director of the Greenwood Community Children's Center (GCCC) from its inception, became the Executive Director of the GCCC in 2001. She established Healthy Families home visitation in 2000 and has added other models and services in a continuum of family supports. She is now the Director of Patient and Family Support and manages home visitation and care coordination for Carolina Health Centers, Inc. Sue Veer joined Carolina Health Centers, Inc. in 2006 and became CEO in 2007. Both leaders recognized the value of family support services integrated within the medical home and worked together to foster holistic child wellness. Home visitation became a valued strategy for those families needing intensive support.

The Children's Center staff explained integration in the following way. “The value of an integrated model cannot be overstated. The tremendous benefits for enhancements to home visitation services are easily understood. Parents still value the advice of their child's doctor and when they view home visitors as part of the health care team, their perception of the value of and their active engagement in home visitation increases. It is exciting to reach a stage where the benefits of home visitation to the medical care profession are now also being recognized. We have anecdotal evidence of the benefits of integration, we have increasing data collection to measure the benefits of integration, and we have dramatic family stories of individual successes due to integrated services. With our participation in both the MIECHV evidence-based home visitation project and the Quality through Innovative Pediatrics project, we have begun to institutionalize a continuous quality improvement process that capitalizes on our integration model.”

While TCC has made its way through the continuum to integration, it is worth noting that they are still working to improve the integrated systems.

Integration has meant that many things have changed for the primary care providers and home visitors. The Children's Center has implemented the use of the same standardized measurement tools and screening tools across all three home visitation service models as well as within the pediatric clinical services, while maintaining fidelity to the individual program models. It is vastly important for the success of the various HV programs, that fidelity to the model not be compromised during integration.
Focused well-child care visits using structured assessments prior to the visits are facilitated by the integration of home visitation within pediatric care. The routine use of standardized screening instruments to identify developmental and/or behavioral concerns by the home visitors enhances the ability of the medical provider to prioritize those areas of concern during their time with the family. Home visitors are able to reinforce anticipatory guidance given by medical providers and to monitor applications within the home environment. Environmental and safety assessments no longer rely on parent self reports but are facilitated by direct observation in the home settings. Routine screening to identify parental depression by both the medical staff and home visitation staff enhance the identification and treatment processes for families. Access to mental health services for home visited parents at risk of depression or other mental illness is enhanced by the integration model. When families see the mental health counselor as part of their Children Center health care team, they are more likely to engage in services.

Co-location clearly 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. Documentation of gaps in community needs are captured and used for enhanced advocacy on behalf of our families. Most recent projects include revisions to the electronic health record data collection to enhance meaningful shared use and the use of Healthy Steps Specialist for a strategy of “substitution.” This is an effort to improve the work flow for well child visits by utilizing the specialists for routine provision of the anticipatory guidance, developmental screens, and parent education that are within their scope of service. In this way, the medical provider is free to use their limited time with the family for the topics of critical concern, to focus on best practice standards for specific indicators and/or issues of parent concern.

Benefits Gained Through Integration

There are multiple benefits that have been gained through The Children’s Center integration of the PCMH and their home visitation models. As noted before, open communication is vital to the success of a partnership. However, in addition to enabling integration, TCC has experienced gains in communication through this partnership. The use of electronic medical records is shared by all team members and home visitors document specific notes within the medical record. Internal communication is enhanced by the electronic record alerts and notes as well as by internal email and co-location of providers. The Healthy Steps model has home visitors actively participating in the well child visits with the medical provider and the family. This has obvious benefits for mutual goal setting, shared care plans, and effective communication. The other home visitors may attend a well or sick visit upon family request or when special circumstances warrant a joint visit. A second benefit of the integration is trust among the physicians and home visitors. All staffs work together and trust has been

Our Work to date has convinced us of the importance of research-based practices. However, our work to date has also taught us that the integration of these research-based practices into a holistic system of care is the real key to sustainable and lasting changes in families. Carolina Health Center's model of integration promotes common goals and outcomes across disciplines to help ensure that every child has the opportunity to reach his or her full potential.

- Sally Baggett,
  Director of Family Support,
  Carolina Health Centers
essential for the success they have experienced. Through the increased trust and communication, TCC home visitors and physicians have reached new levels of collaboration. This collaboration has opened new doors, and they now have a combined voice for advocacy.

The integration at TCC has resulted in improvements for individuals, for providers, and for systems. This is an essential element of integration and shows that the merger at TCC has been successful. The partnership between the patient-centered medical home and coordinated home visitation programs has created better experience of care for families as well as better patient compliance with medical providers’ instructions, which impacts the overall health of children utilizing TCC. Home visitors can reinforce provider’s instructions and/or assist the family with setting incremental steps to reach a health goal. For example, TCC home visitors are piloting an oral health project to improve preventive oral health of young children. They are in the home and can assess environmental issues, can do enhanced oral health risk assessments to supplement those done by the medical providers, can use motivational interviewing skills to help families chose a specific oral health goal and measure progress toward the goal.

The partnership has also led to greater efficiencies, as there have been reductions in risk factors that lead to chronic health conditions, reductions in cost due to decreased emergency department visits, and reductions in duplicated services. These duplicated services include developmental screenings, which before integration, were done by both the physician and the home visitor. Now one developmental screen is done, the results are discussed between the home visitor and the physician, and the results and any necessary follow up are communicated to the patient and their family. When a concern is noted that does not warrant a referral for intervention, the home visitor can help monitor development progress by providing parent-child activities tailored to the specific area of concern and/or provide additional developmental assessments in more frequent dosages for shared review by the provider and family.

In addition to improved results for individuals, providers and the system, the gained benefits of communication, trust and collaboration have led to improved access to care at The Children’s Center. Integration has resulted in improved recruitment, engagement and retention of children and their families in home visitation programs and health care services. By collaborating, both the HV programs and the PCMH have seen increased interest and invested participation in their programs. There have also been reductions in “no show” rates in medical settings, as families understand the value of their child’s medical home and want their children to receive the medical care they need to thrive during childhood.
Collaboration between HV and PCMH has the potential to open the doors for improved financial strategies. Integrated systems should be attractive for innovative financing mechanisms like Pay for Success. Recognition as a PCMH is incentivized with higher reimbursement rates. Home visitation data was used as a component of the Children’s Center PCMH application and helped secure the incentive payments. Nurse-Family Partnership services have been recognized for incentive payments as part of a Birth Outcomes Initiative by the South Carolina Medicaid agency. Healthy Steps has some data to recognize the marketing value to a health practice of this programming as well as limited data that shows patient retention in managed care plans when Healthy Steps is part of the practice. As health care financing moves to increased pay for quality, the value of integration to drive improvements in outcomes and hence, in reimbursement may increase.

### Common Outcomes Result in Improved Outcomes

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<tr>
<th>Measure</th>
<th>MIECHV</th>
<th>HEDIS</th>
<th>CHIPRA</th>
<th>NCQA-PCMH</th>
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Chart adapted from Sally Baggett, “Improving Maternal and Child Outcomes Through Integration and Care Coordination” (paper presented at CATCH meeting, Charleston, South Carolina, January 24-24, 2014).

As noted, there is a natural synergy that exists between the patient-centered-medical home and home visitation. The opportunities created in integration allow opportunities for primary health care provides to meet the ever-changing measures that are created through
the MIECHV, ACA and other programs. In this day and age, quality and outcomes are being measured in ever evolving ways that include Children's Health Insurance Program Reauthorization Act of 2009 (CHIPRA) Quality Indicators, National Committee for Quality Assurance (NCQA) Standards for Patient Centered Medical Homes, Healthcare Effectiveness Data and Information Set (HEDIS) measures and Department of Health and Human Services (DHHS)/Managed care initiatives. The partnerships encouraged through MIECHV, like the integration of HV and PCMH at The Children's Center, have shown that home visitation can enhance health outcomes. The integration of the PCMH and HV creates alignment on key quality measures. If there are common outcomes there are improved outcomes. Synergies exist between outcomes that are pertinent to medical and nonmedical MIECHV funded interventions in their model. The chart below shows the synergies that exist at TCC between outcomes for their medical and home visitation programs.

**Challenges and Improvements Needed of the Integration Process**

Integration is not simple. The original vision for the Children's Center set the stage for collaboration but with limited understanding of the challenges or of the opportunities for improved care. Pediatric primary care and early childhood home visitation typically function within two very different professional cultures. Naturally, the physicians and home visitors wanted to ensure that the integration would result in true collaboration for the benefit of the patients, but they wanted to ensure that they would still be able to meet their goals and mission. The most frequent barrier noted by the medical providers has been concerns about any impediment to patient “flow.” Providers are under pressure to see as many patients as possible in a day. With HV programs, it was necessary that integration did not hinder their ability to provide the services of their national models with fidelity. Over time and with many variations in service delivery strategies, the Children's Center team has learned how to accommodate the needs of the families, the medical providers, and the home visitation providers. Current strategies with Healthy Steps services may actually improve patient flow for well child visits. The pediatric quality improvement grant clearly helped solidify understanding that both professions share mutual goals and that both could be mutually beneficial. Once the benefits of the integration became evident, trust could be established between the two entities. The ability of home visitors, physicians, and their respective staffs learning how to communicate with one another following the establishment of trust took some time but has been a success of this integration.

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. This momentum can gradually become institutionalized.

The integration of TCC took place in August 2011, and while successful, is not a perfect system. As such, the providers at TCC understand the need for a continual system of improvements. They implement continuous improvement across services using the Institute for Healthcare Improvement (IHI) Breakthrough Series format. The findings and tools in the IHI Breakthrough Series reports provide them with an opportunity to understand and evaluate
the issues, and begin testing changes that can help their organization make breakthrough improvements.117

The system improvements that The Children’s Center has made are vast and have led to better care and coordination for the children and families impacted by the integration of the PCMH and home visitation programs. The first improvement is the provision of a continuum of services to provide the best fit for families based on their individual needs. Additionally, it has become clear that addressing the health and psychosocial needs of families requires a range of social, medical and other support services. Therefore, increased access and decreased barriers to both health care and home visitation 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 of decreased barriers, TCC has been able to create a seamless team approach to utilizing medical providers, home visitation providers and behavioral health providers. Based on this team approach, families hear consistent messaging that has led to better utilization of services from all three models. This team approach allows TCC to truly become the medical home for these patients, where needs can be met and everyone involved in their care is on the same page. The team approach of TCC is built upon the use of evidence-based guidelines. The home visitors, physicians and mental health professionals have shared use of electronic records, which allows for easy communication regarding the care of a particular patient. This ensures that everyone knows what the other providers are doing and allows for collaboration and coordination in care. The process allows for electronic record keeping and reporting and tracking efforts are shared by the various staffs, which reduces the burden of record keeping for each of the care providers.

Another series of system improvements has focused on improved family identification, engagement and retention. The Children’s Center has enhanced their care coordination efforts through the system improvement process. This has ensured that they support family self-care; while at the same time enhances the team's problem-solving capacity. By streamlining their process, TCC uses a standardized screening and assessment process prenatally and at birth that ensures families are receiving the best services for their individualized care needs. The screening process also ensures that medical and non-medical staff members are able to identify the high-risk customers who may need more intensive interventions.

The improvements have also impacted the back-of-house system. These improvements allow for greater accuracy in reporting on performance and evaluation measures. They have created improved scheduling and patient flows for the betterment of the care that children receive while they are at The Children’s Center. The improvements have allowed TCC to redesign the electronic health records (EHR) to facilitate quick and easy access to more useful information. The improvement process has also reduced clinical staff time that is used for entering EHR data. The staff members of Healthy Steps provide help with the EHRs for well child visits in the integrated model. Healthy Steps personnel enters patient social demographics, development screens and scores, and depression screens and scores, as well as documents parent education materials, parental anticipatory guidance, and children's developmental milestones.

The Children’s Center has also worked to improve their referral pathways to connect patients and their families with additional community resources that may meet the needs of children beyond the services located at TCC. The continual improvement process TCC has participated in since the integration of their medical and home visitation services in 2011 has impacted the

care children and their families receive. This has been done by streamlining communication so that everyone on the patient’s care team is speaking the same language, accessing the same information, and collectively working to improve the over health of the child. The quality improvement changes have resulted in greater care coordination and a team-based approach to providing care across the services from their primary care provider, home visitation programs, and behavioral health services. They have improved their internal processes so that electronic health records are beneficial to everyone and allow for information sharing creating the best coordinated care possible. TCC staff members have created greater efficiencies in their back-of-house systems and increased their ability to plug children and their families into outside services that only further impact the care they are receiving.

The continual improvements made to the integrated HV and PCMH system at TCC show the commitment that CHC has to providing the best care possible for their children. Sue Veer, CEO of Carolina Health Centers, Inc. said “our long term goal at the Children’s Center is to create an integrated community-based system that provides children with a comprehensive health care home, including mental and behavioral health services, and essential early child development and family support programs.”

(applyability of the model at the children’s center to other family-centered medical homes)

There is increasing awareness that the current model for delivering health care in the United States is not working. There are many ideas for improving the system. One of which is the patient-centered medical home. The PCMH’s impact on the health of children and their families is only further augmented by integration with maternal and child home visitation services. By coordinating the efforts of the PCMH and HV programs, care can truly become all about the patient and bettering their care experience. Integration can create effective care for children and their families at the individual level as well as at the population level.

This example of The Children’s Center integration shows that the patient-centered medical home and home visitation models can be successfully merged together to create a truly all-encompassing medical home. In South Carolina, there are several opportunities presently that help facilitate the application of The Children’s Center of the Carolina Health Centers, Inc. successes to the broader model in the Palmetto State. Currently, South Carolina has the potential to spread both the individual program model interventions as well as the holistic model of integrated home visitation and primary health care, through MIECHV program funding and expansion monies. The home visitation services of Nurse-Family Partnership, Healthy Steps for Young Children, Healthy Families America and Family Check Up are all supported by the South Carolina MIECHV project through contracts with eight agencies. In fact, 16 out of the state’s 46 counties have one or more of the MICHEV funded home visitation services in place.
MIECHV expansion is creating greater opportunities for the integration of home visitation services and medical homes across the state. Under the recent MIECHV expansion, South Carolina secured additional federal funding to expand home visitation services to approximately 1,290 additional families and to add 40 new home visiting positions across the state. Nine new sites are funded to increase two NFP and seven Healthy Steps home visiting programs in targeted areas of the state that were not able to be served in the state’s program formula funding. The remaining current 8 sites included in the plans for expansion grant monies will have also received funds to expand their services. 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 and to extend services to additional service areas based on the needs assessment and the readiness of pediatric providers for integrated systems building.

The South Carolina Quality through Technology and Innovation in Pediatrics (QTIP) project (the CHIPRA funded grant referenced earlier) has primed pediatric providers for integrated systems building. While their major focus has been on improving patient care through the use of clinical quality measures and health information technology, the project has also introduced them to the Children’s Center model on multiple occasions. Linking QTIP pediatric sites with MIECHV sites has the potential to increase the spread of potential Pay for Success projects throughout the state, which would increase the opportunities to expand home visitation services.

As these opportunities for expanded home visitation services in South Carolina grow, there are increasing opportunities to integrate home visitation programs with the family-centered medical home. The example of success at Carolina Health Centers shows that integration can be successful for the patient, the provider, and the health system. By utilizing the lessons learned, quality improvements implemented, and team-based coordinated care system of The Children’s Center, other medical homes across the state can create their own HV/PCMH integrated system. The continuum of integration and the experiences of a health system in our state help create a pathway towards successful integration for the betterment of care for our state’s children and their families.

The successful model at The Children’s Center in Greenwood, South Carolina can inform the process of integration in this state but also beyond South Carolina. The national landscape reveals that there is interest from the country’s main pediatric health associations and the federal government in creating successful integration of primary care providers and home visitation models. 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 Affordable Care Act. 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 original MIECHV funding has been utilized to serve about 15,000 families.

There have been three cycles of MIECHV funding so far. In 2010, $91 million was awarded by formula to states to begin to plan for implementation of home visiting programs. In 2011, HRSA awarded a total of $224 million to states and territories; $124 million by formula and $100 million by competition to those states that have sufficiently demonstrated the interest and capacity to expand and/or to enhance the development of their home visiting efforts. Competitive funding was awarded through Expansion Grants ($66 million) to nine states and Development Grants ($34 million) to 13 states. In 2012, $125 million was awarded on a formula basis to all eligible states and territories. Expansion funds were added to $12 million awarded to six states through Development Grants to build on existing home visiting efforts.

The funding of the MIECHV program in all states across America demonstrates that there is great opportunity for expanding home visitation services. As maternal and infant home visitation is spread across our country, it is the perfect time to integrate evidence-based home visitation models into the family-centered medical homes. Additionally, the patient-centered medical home model is growing as a way to provide patient-centered care. There are over 7,000 National Committee for Quality Assurance recognized PCMHs and as of June 2013, more than half (53%) of respondents of the survey of physicians and healthcare professionals currently participate in an accountable care organization, patient-centered medical home, or other risk-based or shared savings programs. As demonstrated in the research and in the example of Carolina Health Centers in Greenwood, the impact of home visiting services is even greater when coupled with the family-centered medical home. Taking advantage of the interest of professional organizations nationally and funding from the federal government allows health systems across America to integrate now to ensure a true medical home that encompasses all elements of the best care available for our nation’s children and their families.

If integration of the patient-centered medical home and home visitation occurs, the health care of our children will be significantly impacted in a positive way. This will allow for stronger health care for children, starting with their mother in the prenatal age through young adulthood. This national interest in the integration of PCMH and HV models has the ability to positively impact our country’s early childhood system.

120. Ibid.
While the above chart shows the need for a community-based system of services for families of children and youth with special health care needs, this idea can be applied to all young children. This system is built upon six central principles of care that is: 1. responsive to the family challenges, priorities, and strengths; 2. developed in partnership with constituents; 3. reflective and respectful of the family’s cultural norms and practices; 4. universally accessible; 5. affordable for those who require assistance; and 6. Resources are equitably distributed through collaboration that is organized and coordinated to ensure care is delivered in an
efficient and 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 to support the healthy development and well-being of young children and their families.

In fact, MIECHV grantees are encouraged to coordinate home visiting 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 home visitation services and primary care, as demonstrated at The Children’s Clinic of Carolina Health Centers, is an important step in creating an impactful integrated early childhood system that our country’s youngest children truly deserve.

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. The Heckman equation includes the principles that schools and tuition are important but less so than other interventions. Later remediation is less effective and more costly than preventing problems early in children’s lives. Therefore, social policy should be directed towards creating an encompassing 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, including the integration of PCMH and HV programs, have short-term and long-term benefits that include creating an effective work force, preventing chronic conditions and lowering the costs of health and other care. The family-centered medical home is a way to put together 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.

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The Institute for Child Success is a non-profit, non-partisan research and policy organization that fosters public and private partnerships to align and improve resources for the success of young children in South Carolina. A partnership of the Children’s Hospital of the Greenville Health System and the United Way of Greenville County, ICS supports service providers, policy makers, and advocates focused on early childhood development, healthcare, and education to build a sustainable system that ensures the success of all children, pre-natal through age five.