

# Building on the CHIPRA Grant Experience to Spread and Sustain Quality Health Care for Children

Key Focus Areas and Sustainability Opportunities of the Florida-Illinois  
CHIPRA Quality Demonstration Grant

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## Introduction

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In February 2010 as part of the Children's Health Insurance Program Reauthorization Act (CHIPRA), the Centers for Medicare and Medicaid Services (CMS) awarded 10 quality demonstration grants, funding 18 states, to improve health care quality and delivery systems for children enrolled in Medicaid and the Children's Health Insurance Program (CHIP). Under this grant opportunity, the Florida Agency for Health Care Administration (AHCA) and the Illinois Department of Healthcare and Family Services (HFS) were jointly awarded \$11.3 million for work to be completed over the subsequent 5-year period.

To achieve the overarching goal of the grant of improving child health and child health outcomes, Florida and Illinois have undertaken a number of initiatives in four key federal priority areas:

- Experimenting with and evaluating the use of quality measures to improve child health care;
- Promoting the use of Health Information Technology (HIT) in the delivery of care for children;
- Evaluating provider-based models that improve the delivery of Medicaid/CHIP children's health care services; and
- Assessing the utility of other innovative approaches to enhance child health care quality.

Florida and Illinois have worked both collaboratively and independently on developing and implementing a variety of initiatives in each of these priority areas, tailoring projects to their own unique state environments and priorities while also working collaboratively where applicable to develop and deploy joint products and resources, share best practices and progress, and benefit from cross-state learning opportunities.

Across project areas, consistent themes emerged and have led to the formation of several culminating key focus areas for improvements in child health care quality. The CHIPRA grant work offers valuable insights and reveals ample opportunity for stakeholders to further the impact of this grant and spread and implement improvements in these focus areas. This report describes opportunities for how federal and state government, public and private payers, providers, advocates and other stakeholders can build on critical areas of the CHIPRA Quality Demonstration Grant's success in the following identified areas:

- Transformation of practices to meet standard, nationally-endorsed medical home standards and principles.
- Quality collaboratives that teach quality improvement methods and improve care.
- Ongoing and credible performance measurement and reporting at the provider, plan and state level designed to achieve buy-in and engagement in quality improvement.
- Investment in robust, certified electronic health records (EHRs) that support management of preventive, acute, and chronic pediatric care; and support for pediatricians and pediatric subspecialists to utilize these functions to meet Meaningful Use requirements.

Principally, the Florida and Illinois CHIPRA grant project teams recommend that Medicaid and CHIP should optimize health outcomes for women and children by ensuring a high-quality health care system that utilizes

standard, nationally-endorsed quality measurement; evidence-based quality improvement science at the provider, plan and state level; the meaningful use of robust, certified electronic health information technology; and public/private collaboration and alignment. The following report describes the aspects of the Florida-Illinois CHIPRA Quality Demonstration Grant activities that have led to the formulation of these culminating focus areas and how they could be supported and built upon. In providing this information, Florida and Illinois hope to spread and sustain the cumulative knowledge base derived from this work.

## Activities of the Florida-Illinois CHIPRA Quality Demonstration Grant

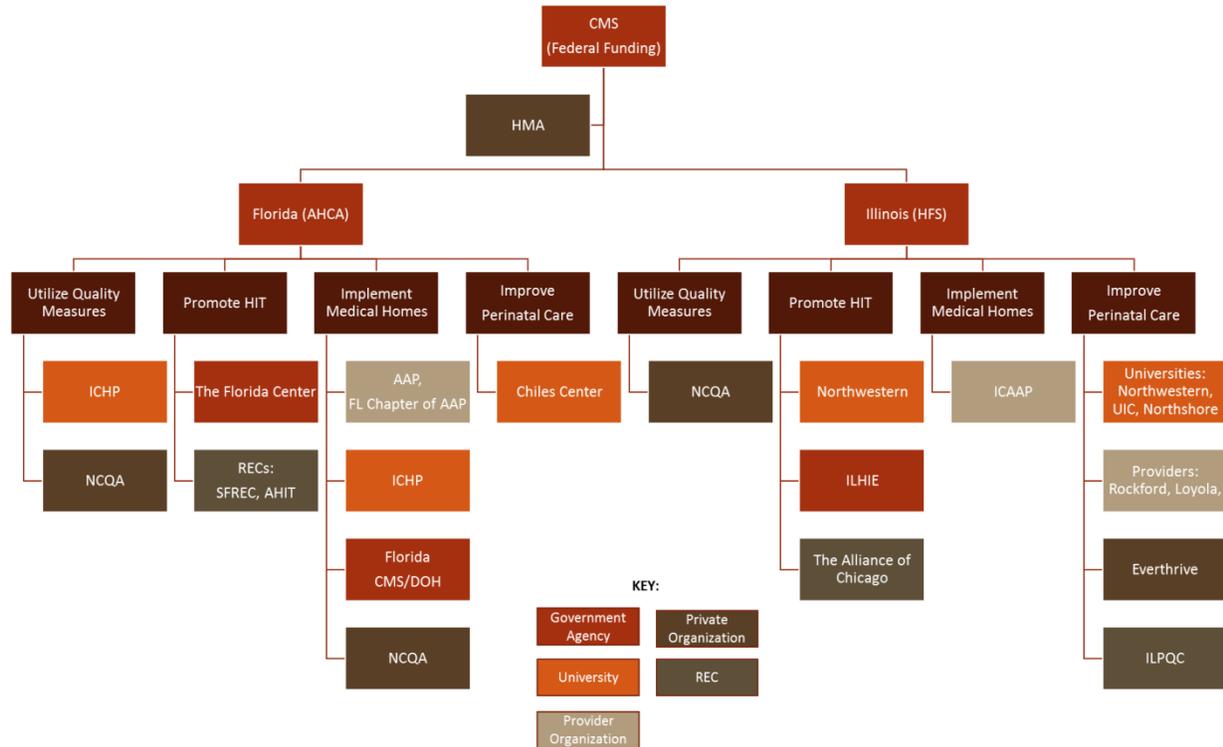
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The Florida-Illinois CHIPRA Quality Demonstration grant was a 6-year<sup>1</sup> unprecedented collaboration of key stakeholders across the two states. At its core, the CHIPRA project was designed and implemented by the state Medicaid agencies in each state—the Florida Agency for Health Care Administration (AHCA) and the Illinois Department of Healthcare and Family Services (HFS)—with the project management, expertise, analysis and support provided by Health Management Associates (HMA), a national consulting firm. AHCA, HFS and HMA brought together a myriad of partners, including other state agencies, national and state associations, hospitals, providers, advocacy organizations and other healthcare organizations and experts to achieve the grant goals.

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<sup>1</sup> While the project was a 5-year grant, a no-cost extension was awarded by CMS, allowing Florida and Illinois to continue their grant work in a sixth year.

## Florida-Illinois CHIPRA Quality Demonstration Grant Organizational Chart



In each the four key federal priority areas, Florida and Illinois conducted a variety of initiatives focused on improving child health and child health outcomes from 2010 to 2016. Comprehensively detailed elsewhere,<sup>2</sup> they are also summarized in brief here to provide an overview of the depth and breadth of this work.

### Utilizing Quality Measures

One key federal priority of the CHIPRA grant in which both Florida and Illinois engaged was the measurement of and reporting on a federally selected Core Set of Children’s Health Care Quality Measures for Medicaid and CHIP (Core Set). The states devoted substantial time and resources to calculating and reporting on the Core Set measures in each Federal Fiscal Year (FFY) of the grant, with improvements and efficiencies in measurement processes and the ability to expand the scope of their data reporting with each reporting cycle. Florida and Illinois also jointly developed an assessment tool to identify which measures should be targeted for quality improvement, assisting the states in determining how to allocate limited state resources toward the opportunities where performance improvement efforts could have the greatest impact.

### Promoting the Use of HIT

Florida and Illinois each worked individually with their state Health Information Exchange (HIE) staff to advance the use of health information technology among child-serving providers. The Florida CHIPRA team, in partnership with

<sup>2</sup> The Children’s Health Insurance Program Reauthorization Act (CHIPRA) Quality Demonstration Grant: Final Report for Florida and Illinois (2010-2016)

the state HIE staff, conducted two initiatives to promote the enrollment of child-serving providers in the state's two predominant HIT services offered through the HIE—Direct Secure Messaging (DSM), which provides a way for health care professionals to securely send and receive HIPAA-compliant, encrypted transmissions of Protected Health Information via email, and Hybrid Patient Look-Up (PLU), which allows providers to query the medical records of participating health care organizations, including hospital networks, Regional Health Information networks, county health departments and other participants, providing access to individual patient clinical information.

In Illinois, the CHIPRA team participated in HIE planning/implementation activities and worked closely with the Illinois HIE strategic team to ensure that information from the HIE is available to child-serving providers. A primary focus of the CHIPRA project in Illinois—through the development and implementation of initiatives spanning across the key federal priority areas—was to improve perinatal care and birth outcomes. One such initiative, to make better prenatal care information available at birth hospitals to improve birth outcomes, integrates HIT in the delivery of care for women giving birth. The CHIPRA team developed the Prenatal Minimum Electronic Data Set (PMEDS) to provide prenatal care treatment information to prenatal providers and delivering hospitals that can be accessed at the time a woman presents at the hospital for delivery, increasing the efficiency and accuracy of care by eliminating duplication of services and delays in care. Through a second HIT initiative, Illinois primary care providers were given access to an expanded database of referral resources through the Illinois Department of Children and Family Services' Statewide Provider Database (SPD). The database facilitates care coordination and assists providers and families in locating a wide range of services in their community. In addition, in conjunction with the medical home learning collaborative demonstration, Illinois provided subscriptions to the Illinois Health Information Exchange (ILHIE) DSM product. Practices were encouraged to register for the service and use the product through plan-do-study-act cycles focused on communicating protected health information with community partners (school nurses).

## **Implementing and Evaluating Provider-Based Delivery Models**

Pediatric medical home learning collaborative demonstrations were a significant endeavor of the CHIPRA grant in both Florida and Illinois, and are described in depth later in this report. Florida engaged 34 pediatric practices in two learning collaborative series. Illinois' approach progressed throughout the course of the grant from a flexible approach involving 51 practices to a more structured approach with 15 practices, and finally a more intensified approach with technical assistance provided over time to assist child-serving practices in medical home transformation, with an eventual learning collaborative that coached 15 pediatric and family medicine practices through medical home transformation. An additional medical home effort was a collaborative venture of both states to assist four practices through the process of applying for National Committee for Quality Assurance (NCQA) Patient-Centered Medical Home (PCMH) recognition.

## **Assessing the Utility of Other Innovative Approaches to Enhance Quality**

Improving the timely and appropriate use of perinatal care to improve health outcomes for Medicaid- and CHIP-enrolled children is a top priority for Florida and Illinois, and was thus the focus of their work in the federal key priority area to assess other innovative approaches to enhance child health care quality.

Described in full detail later in this report, both states utilized CHIPRA grant resources to develop and/or support state Perinatal Quality Collaboratives (PQCs). Illinois also engaged in a number of other perinatal projects, including the development of a Prenatal Care Quality Tool (PCQT) to help prenatal providers deliver recommended content of prenatal care; development of the PMEDS tool described above; a Perinatal Education Toolkit to help clinical and community providers educate Medicaid women on the benefits and importance of preconception, prenatal, postpartum, and interconception care; a study to explore existing recommendations, perceptions of, barriers to and preferences for postpartum care, which included testing an alternative approach to postpartum contraceptive care; and the formulation of a perinatal care transitions workgroup to identify best practices and improve contractual language for health plan contracts related to care transitions and compliance with that language.

### Accomplishments, Lessons, Spread and Sustainability

The significant depth and breadth of work that has been achieved as a result of the CHIPRA grant will have lasting implications on child health quality in Florida, Illinois and beyond, both through projects and products that will be directly sustained and through the cumulative knowledge base that has been gained and will inform future initiatives and policy. The *Children's Health Insurance Program Reauthorization Act (CHIPRA) Quality Demonstration Grant: Final Report for Florida and Illinois (2010-2016)*<sup>3</sup> (FL-IL Final Report) is the culminating report for the project, and provides full detail on each task and work product completed under the grant, including accomplishments, barriers to implementation and lessons learned.

As the FL-IL Final Report shows, the lessons and accomplishments of this substantial body of work are many and diverse. Yet even across project areas, consistent themes emerged and have led to the formation of several culminating key focus areas and opportunities for stakeholders to support these areas.

The following sections focus on the activities, successes and lessons that have led to the formulation of these key focus areas and opportunities. It is not meant to duplicate the work of the FL-IL Final Report and be an exhaustive report of every project completed under the grant. Instead, Florida and Illinois have culled through the work in order to be able to emphasize the essential aspects that support the focus areas and opportunities.

## Quality Improvement Learning Collaboratives

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Much of the work implemented by Florida and Illinois through the CHIPRA Quality Demonstration Grant utilized a health care quality improvement learning collaborative approach. Learning collaboratives work to bridge the gap between the *science* of health care—proven, evidence-based processes that result in improved health outcomes, and the *practice* of health care—the care that is actually delivered to patients. Despite all of the research into what

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<sup>3</sup> The FL-IL Final Report summarizes for the Centers for Medicare & Medicaid Services (CMS) the grant-related activities, accomplishments, and challenges that have been faced during the grant term. It is currently in production and will be published in February 2016.

constitutes quality care for patients and which care processes result in the best outcomes, the data consistently show that patients are not uniformly receiving the care that the research supports.<sup>4,5</sup>

This gap between what is known and what is done represents a significant improvement opportunity—if every child received the care that we already know they should receive, when and how we already know they should receive it—health outcomes could be optimized. Learning collaboratives are a method of advancing best practices by bringing together key stakeholders or teams to work collaboratively to improve an aspect of care through promotion and education regarding evidence-based practices, shared learning of the experiences and challenges in implementing these changes and feedback and support to make additional needed changes and sustain the improvements. A learning collaborative teaches quality improvement science—it educates participants on *how* to improve rather than just *what* needs improvement. Participants learn how to implement improvement processes—how to implement a test of change, how to know if it is working and how to act on the results to advance the improvement process.

Learning collaboratives vary in structure depending on the improvement topic and stakeholders involved. Through the CHIPRA Quality Demonstration Grant, Florida and Illinois each worked to implement two types of learning collaboratives—state-level, multi-stakeholder Perinatal Quality Collaboratives (PQCs) to improve pregnancy outcomes for women and newborns; and practice-level learning collaboratives to improve the adoption of medical home principles and the delivery of patient- and family-centered care.

## Perinatal Quality Collaboratives

Florida and Illinois successfully implemented state-level Perinatal Quality Collaboratives (PQCs) focused on improving birth outcomes through continuous quality improvement. State-level PQCs are networks of perinatal care providers and experts from both public and private settings that work to improve pregnancy and birth

<sup>4</sup> *Crossing the quality chasm: a new health system for the 21st century*. Washington, DC: The National Academies Press, 2001.

<sup>5</sup> Murthy L, Shepperd S, Clarke MJ, Garner SE, Lavis JN, Perrier L, Roberts NW, Straus SE (2012) “Interventions to improve the use of systematic reviews in decision-making by health system managers, policy makers and clinicians (Review)” *The Cochrane Library*, 2012, Issue 9.

### How Learning Collaboratives Work

Doctors, hospitals, and supporting personnel work together to redesign care processes to bring about improved health care. Periodic in-person meetings train participants in quality improvement strategies like creating cross-discipline and cross-functional teams, identifying and testing incremental changes, measuring the impact, and routinizing any improvements. Outside the meetings, participants are tracking their experiences and sharing data with the collaborative, which then leads to calls where the top performing groups share their lessons.

#### Key Accomplishments:

Florida and Illinois successfully implemented learning collaboratives at the state and provider levels, engaging provider and stakeholder participation across the state.

#### Key Focus:

Quality collaboratives that teach quality improvement methods and improve care.

outcomes for women and children.<sup>6</sup> The PQC works together to identify care processes in need of improvement in the state and promotes evidence-based practices and data-driven improvement processes to improve care and outcomes. The Florida and Illinois PQCs engage hospitals and providers in quality improvement projects through a process that includes education on how to improve a specific process; training on how to track performance and know if it is working; and data feedback comparing progress with other hospitals. This collaborative approach maximizes the potential for improved outcomes since best practices, experiences and methods of overcoming barriers are shared learning opportunities, and the engagement of multiple provider systems working toward a common goal allows for wider scale improvement.

The interest in establishing state-level PQCs has been growing nationally as early evidence of success, particularly in states with high birth levels (notably, California and New York), has been demonstrated.<sup>7</sup> Building on this movement nationally, as well as efforts within Florida and Illinois that were already coalescing around the formation of PQCs, Florida and Illinois chose PQCs as the vehicle through which to drive perinatal improvements as part of their CHIPRA Quality Demonstration Grant work. Florida used CHIPRA funding to strengthen its existing PQC, the Florida Perinatal Quality Collaborative (FPQC), while Illinois used funding to create the Illinois Perinatal Quality Collaborative (ILPQC).

### *Florida Perinatal Quality Collaborative (FPQC)*

The Florida Perinatal Quality Collaborative (FPQC) began in 2010 with a seed grant from the March of Dimes with the mission to advance perinatal health care quality for mothers and infants through the collaboration of stakeholders in the development of joint quality improvement initiatives and the advancement of data-driven best practices. The timing of the FPQC's inception was perfectly aligned with the commencement of the CHIPRA grant and the grant's focus on improving perinatal health outcomes. With the coalition of perinatal-related organizations, health professionals, advocates, policy makers, hospitals and payers already assembled and engaged to voluntarily implement data-driven, population-based, quality improvement processes, the opportunity to utilize CHIPRA funding to support and cultivate the work of the FPQC was evident. With FPQC leadership serving as CHIPRA team members, CHIPRA funding allowed for the continuation and expansion of promising quality improvement projects through supporting the involvement of additional hospitals in existing quality improvement initiatives, more in-depth analysis of data to identify and tailor additional quality improvement opportunities, and bolstering the collaborative's governing structure and membership by broadening its membership and formalizing its collaboration with the State. In this way, CHIPRA funding has been able to provide for more than just direct funding for an initiative – it has been able to solidify the collaborative's infrastructure so that it can continue to be a forerunner in perinatal health improvement in Florida beyond the length of the CHIPRA grant.

The first initiative of the FPQC, the March of Dimes' Big 5 project, sought to eliminate elective deliveries without medical indications before 39 weeks gestation in order to improve the health outcomes of babies in the five most populous states (Florida, California, Texas, New York and Illinois). Through this project, the FPQC partnered with the March of Dimes to change hospital policies and procedures and educate providers to avoid scheduling these

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<sup>6</sup> Centers for Disease Control and Prevention, Perinatal Quality Collaboratives. <http://www.cdc.gov/reproductivehealth/MaternalInfanthealth/PQC.htm>, accessed 6/30/2015.

<sup>7</sup> Ibid.

deliveries. The project pilot tested the “California Maternal Quality Care Collaborative Elimination of Non-Medically Indicated (Elective) Deliveries Before 39 Weeks Gestational Age” toolkit – training hospitals in its implementation; conducting provider education to gain staff buy-in; and providing data for monitoring progress, comparing performance, addressing barriers and issues and enhancing the program. Results from this pilot were published in *Obstetrics & Gynecology*<sup>8</sup> and received the 2013 Roy M. Pitkin Award for Research Excellence. The project was so successful in reducing early elective deliveries (EEDs) among six pilot hospitals that additional funding, including CHIPRA funding, was garnered to expand the initiative. CHIPRA funds were used to educate obstetrical providers across the state about the importance of avoiding EEDs through Grand Rounds conferences, quarterly email newsletters, webinars, and videos of interviews with obstetric experts, as well as educational packets and checklists regarding the potential risks associated with EEDs to help guide conversations with patients. The most recent release of data on hospital EED rates as reported to CMS as part of the Inpatient Quality Reporting (IQR) program<sup>9</sup> shows Florida has reduced its EED rate from 6 percent to 4 percent, dropping below the national benchmark rate of 5 percent.

Direct CHIPRA funding was also used to purchase and analyze Vermont Oxford Network (VON) data on neonatal outcomes at 20 participating Florida hospitals. These data helped determine whether Florida’s efforts to prevent Neonatal Catheter-Associated Blood Stream Infections (NCABSI) through the multi-state NCABSI collaborative, a Partnership for Patients and Health Research and Education Trust project supported by the American Hospital Association, were successful and scalable to other hospitals in the state. The VON data analysis helped to identify topics for quality improvement projects and secured participation in quality improvement projects from hospitals. The NCABSI project, which worked to reduce infections in neonates by establishing and institutionalizing strict protocols on line insertion and maintenance in participating neonatal intensive care units (NICUs) through data monitoring and analysis and technical assistance, ultimately resulted in the following outcomes:<sup>10</sup>

- 98 percent compliance with insertion protocol for lines placed in the NICU, and 90 percent compliance for lines placed overall;
- 95 percent compliance with maintenance protocol;
- 58 percent reduction in the central line infection rate, which is equivalent to 150 avoided infections in neonates;
- An estimated 18 averted deaths from central line infections;
- Reduced length of hospital stays, avoiding approximately 1,200 inpatient days; and
- Saved the state nearly \$8 million in costs.

**Key Accomplishment:**

State-level perinatal quality collaboratives resulted in improved outcomes and lower costs.

Subsequent VON data analyses have continued to show that the FPQC has been successful in sustaining these gains. These data made available through the CHIPRA grant not only informed collaborative-level quality

<sup>8</sup> Oshiro BT, Kowalewski L, Sappenfield W, Alter CC, Bettgowda VR, Russell R, Curran J, Reeves L, Kacica M, Andino N, Mason-Marti P, Crouse D, Knight S, Littlejohn K, Malatok S, Dudley DJ, Berns SD. A multistate quality improvement program to decrease elective deliveries before 39 weeks of gestation. *Obstet Gynecol*. 2013 May;121(5):1025-31.

<sup>9</sup> These data can be found at <http://data.medicare.gov>

<sup>10</sup> From December 2011 to August 2013, across the 16 participating NICUs in Florida.

improvement efforts, but also allowed participating hospitals to compare their own data to other hospitals and determine where their own individual additional efforts were needed. Using these data, the FPQC has been able to support the diffusion of best practices on reducing neonatal blood stream infections more broadly, through educational opportunities such as webinars and conferences offered to interested perinatal stakeholders across the state.

The NCABSI project, along with the aforementioned substantial progress in reducing elective pre-term births, brought significant attention to the importance of the FPQC's work and allowed for its continued expansion to engage in other projects.

CHIPRA funding also directly supported the FPQC's next initiative, which focused on newborn resuscitation during the "golden hour" after birth when short- and long-term outcomes could be improved the most. The goal was to improve delivery room management for infants born before 31 weeks gestational age or with very low birth weight through the implementation of evidence-based practices, including improving temperature regulation and oxygen saturation and delaying umbilical cord clamping. CHIPRA funding allowed the FPQC to develop the project toolkit and provide the nine participating hospitals with technical assistance on quality improvement methods through individualized onsite training and group educational webinars. In addition, hospital-specific reports on submitted data were provided to each hospital and monthly data report review calls were held to explain each graph/chart and missing data points, describe control chart results and individual project interventions, discuss any problems or concerns and work with the hospital to use the data to develop action plans to improve performance. As of March 31, 2015, the nine project hospitals entered data on 1,123 neonates. Such resounding success was achieved toward project goals early on that the project team established new goals for some of the project outcomes. Selected results from the project include:

- The percent of infants who received delayed umbilical cord clamping for 30-60 seconds after delivery significantly increased from 20 percent at baseline to a high of 76 percent in March 2015.
- Compliance with the delivery room readiness bundle (pre-delivery briefing of the delivery team, an equipment check, verification that the radiant warmer was turned on to 100 percent, and holding a debriefing meeting within four hours of the delivery) increased throughout the course of the project. With the exception of holding a debriefing meeting after the delivery, the other three elements of the bundle were achieved for over 80 percent of deliveries by December 2014. Progress on debriefing has steadily increased and is approaching 80 percent.
- Assignment of specific team roles increased throughout the course of the project, meeting or exceeding the goal of 90 percent assignment for at least three of the roles for June 2014—March 2015. Team roles include a team leader, someone responsible for airway, for circulation, and someone to serve as scribe to capture data and other details of the delivery.

A survey of members of the Golden Hour teams among the 9 participating hospitals also detailed some of the project's successes:<sup>11</sup>

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<sup>11</sup> Florida Perinatal Quality Collaborative at The Lawton and Rhea Chiles Center for Healthy Mothers and Babies, "Evaluation Survey of Golden Hour Project Participants."

- After the project, respondents reported improved preparedness in delivery room management across all project domains, including: exclusive resuscitation team roles (73 percent felt quite prepared or extremely well prepared post-project compared to 60 percent pre-project), thermoregulation (100 percent compared to 67 percent), oxygen saturation monitoring (100 percent compared to 73 percent), debriefing (72 percent compared to 13 percent), and delayed cord clamping (86 percent compared to 33 percent);
- 100 percent of respondents felt that the overall guidance and technical assistance received by FPQC was good or excellent, commenting that there was “enough information to drive change and track progress on key drivers but not too much of a data burden,” and that it was “thorough and to the point;” and
- Using IHI’s Assessment Scale for Collaboratives, most respondents (79 percent) indicated that the Golden Hour project resulted in significant improvement, sustainable improvement or outstanding sustainable results.

More broadly, CHIPRA funding has been used by the FPQC to bolster the collaborative and establish the infrastructure that will promote its sustainability in the long-term. CHIPRA funding was used to support speakers for FPQC’s 2014 and 2015 annual conferences for perinatal providers, offering indispensable learning opportunities, access to critical data on Florida perinatal outcomes compared to national benchmarks and discussion to identify and prioritize top neonatal issues and secure engagement in the design and implementation of resultant quality improvement projects. Future annual conferences will continue to provide a principal learning opportunity for perinatal providers in the state. CHIPRA funding has also been utilized to conduct governance implementation activities, including finalizing the FPQC’s strategic plan and operating procedures, and to develop continuing infrastructure to engage health professionals and public agencies. The FPQC has used other funding streams to implement a project addressing obstetric hemorrhage, to provide introductory quality improvement training for hospital teams, and to develop a quality indicators system to monitor perinatal health and outcomes. Future plans include quality improvement projects on antenatal corticosteroid treatment (in conjunction with the March of Dimes Big 5 States collaborative), hypertension in pregnancy, and human milk in the NICU. The FPQC, through CHIPRA and its other funding streams, is now positioned to share information with AHCA, Florida’s Medicaid agency, on key perinatal issues and associated quality improvement efforts and opportunities to improve care for Florida children and their families, serving a critical statewide function.

Each project of the FPQC has had lasting implications for perinatal health care in Florida—whether through the awareness brought to critical issues, the increased application of evidence-based practices, improved outcomes achieved or lower costs. It is through this type of structure—a statewide collaborative of key stakeholders, jointly working toward perinatal care improvements—that real, large scale achievements have been possible. As each succeeding project further demonstrates the importance of FPQC’s work, the need to sustain this structure is more and more evident. The impressive results of the FPQC initiatives have proven that it was a good investment of CHIPRA grant funding, but beyond the grant sustainable funding will be needed for the work to continue.

### *Illinois Perinatal Quality Collaborative (ILPQC)*

With support from the CHIPRA grant, Illinois was able to launch the Illinois Perinatal Quality Collaborative (ILPQC). The CHIPRA demonstration provided the needed start-up funding and dedicated staff time, as well as the cross-state learning opportunity to benefit from Florida’s experience in establishing and maintaining a perinatal quality

collaborative. ILPQC leadership were able to participate in Florida’s statewide conference for perinatal providers, which afforded the opportunity to learn from Florida’s PQC leadership directly, as well as from other national PQC leaders assembled for the conference. Florida’s efforts to establish a governance structure and recruit key stakeholders through one-on-one meetings to ensure buy-in laid the framework for Illinois’ own infrastructure and recruitment tactics.

Participation in the ILPQC is open to all Illinois birthing hospitals. Hospitals are able to participate in projects of their choosing so participation varies by project. Over 100 hospitals are currently participating in one or more ILPQC projects, representing more than 85 percent of obstetric (OB) beds and more than 85 percent of NICU beds in the State. The State’s Regionalized Perinatal Network is a valued and important stakeholder with 10 networks statewide participating. ILPQC leadership regularly participates in regional and statewide Perinatal Network meetings. The ILPQC is located in the Chicago area, but the ILPQC’s OB and Neonatal Advisory Groups hold at least one face-to-face meeting annually in other communities in Illinois.

Since its inception, which launched with its inaugural statewide conference in 2013, the ILPQC has already initiated five quality improvement projects. In 2014, these projects included initiatives to improve neonatal nutrition and reduce early elective deliveries (EEDs). Prior to implementing the EED project, ILPQC partners—the Illinois Hospital Association (IHA) and the Illinois Chapter of the March of Dimes (MoD)—conducted a survey to assess hospital hard stop policies. In addition, another key partner, the Illinois Department of Public Health (IDPH), analyzed and shared EED data with hospitals, which resulted in much needed and valuable discussions of data limitations prior to the start of the initiative. The Obstetric Early Elective Delivery (OB EED) project began with a series of three OB “boot camps” conducted by the ILPQC, which were four-hour educational webinars related to EED, quality improvement science, and the IDPH EED data. The OB EED project sought to reduce EED to less than 5 percent of deliveries across more than 95 percent of the 49 participating hospitals and improve the ability for hospitals to compare accurate EED data over time and across Illinois hospitals. Progress was measured through quarterly Joint Commission EED PC-01 measure data. Although many participating hospitals were below the 5 percent goal at baseline, the project resulted in a reduction in EEDs at 37-38 weeks gestation from 2.33 percent (2013, Quarter 1) to 1.81% (2014, Quarter 4), a 0.52 percentage point decrease among 40 participating hospitals. The remaining hospitals, those above the 5 percent goal, continue to receive QI resources, including one-on-one coaching calls, PDSA and data support, review of hard stop policies, provision of the National Quality Forum’s (NQF) EED Playbook, and best practice materials from other Illinois hospitals and other states.

The Improving Neonatal Nutrition Initiative involved 18 hospitals and more than 1,000 very low birth weight infants (VLBW). The project sought to improve the nutrition and growth of premature babies, whose growth post-birth is less than what it would have been if they had remained in the womb until gestation. The goal of this initiative was to reduce the percentage of VLBW infants discharged from a NICU with a weight less than the 10<sup>th</sup> percentile from 45 percent to below 30 percent by early 2015 through dissemination of evidence-based strategies for improving newborn nutrition through educational webinars, a toolkit, and the monitoring and provision of data. The following improvements were noted:

- Start time for Total Parenteral Nutrition (TPN) decreased from around 3 hours to less than 1.5 hours;

- Start time for lipids decreased from 16 hours to less than 6 hours;
- Start day for enteral feeds decreased from 4 days to less than 1 day;
- Days to 120ml/kg feeds reduced from 18 to 14 days;
- Estimated savings of \$4.5 million, attributable to fewer TPNs and lipids; and
- Reduction in percent of VLBW infants discharged with weight less than 10<sup>th</sup> percentile from 45 percent (January 2013) to 33 percent (December 2014).

In 2015, additional quality improvement projects include a birth certificate accuracy project, a maternal hypertension project and a neonatal “golden hour” project. The birth certificate accuracy initiative seeks to improve birth certificate accuracy to 95 percent for 17 collaboratively identified birth certificate data fields by December 2015. All birthing hospitals in the state were educated on the importance of birth certificate data for public health and were invited to participate. While this project began with just 35 hospitals in 2014, it now includes 109 hospitals who participate in monthly OB Team Calls and a face-to-face learning session, conducted by quality improvement leadership from the Ohio Perinatal Quality Collaborative and Ohio hospital teams that participated in their Birth Certificate Initiative, as well as representatives from IDPH Office of Women’s Health, Vital Statistics and the Regionalized Perinatal System. The initiative includes monthly birth certificate accuracy audits and feedback, and one-on-one monthly QI support conducted by perinatal network administrators. Hospital teams and the Birth Certificate Working Group expressed interest in improving the accuracy of key maternal morbidity indicators for future quality improvement work. Since the inception of the project in October 2014 there has been an increase in birth certificate accuracy for 17 key variables from an average baseline of 87% (100 hospitals) to 94 percent as of August 2015 (88 hospitals), a 7 percentage point increase.

The maternal hypertension initiative will be focused on reducing the rate of severe morbidities in women with severe range hypertension (eclampsia, or preeclampsia superimposed on pre-existing hypertension) by 20 percent. The ILPQC OB Advisory group formed a hypertension workgroup to begin planning the initiative which has included a review of the American Congress of Obstetricians and Gynecologists (ACOG), California Maternal Quality Care Collaborative (CMQCC) and New York State Perinatal Quality Collaborative (NYSPQC) toolkits and resources in order to inform an understanding of evidence-based best practices. Thus far, the workgroup created a driver diagram, selected outcome, process, balancing, and other measures to evaluate the impact of the initiative, and developed a data collection form. The initiative is expected to launch in early 2016 in partnership with the IDPH Office of Women’s Health, the ACOG and its Alliance for Innovation on Maternal Health (AIM) initiative.

Modeled after Florida’s golden hour project, the Illinois Neonatal Golden Hour Initiative includes an adaptation of the FPQC’s toolkit and will employ interventions that focus on delayed cord clamping, thermoregulation, oxygenation and well-coordinated care among providers. Planning groups were convened in November 2014 to develop the toolkit, and the project launched in participating hospitals in April 2015. By December 2016, the objectives the ILPQC Neonatal Golden Hour Initiative hopes to achieve include:

- 90 percent of infants less than 32 weeks gestation or less than 1500 grams birth weight will have a temperature between 36.5-37.5°C upon admission to the NICU;

- 80 percent of all infants less than 32 weeks gestation or less than 1500 grams birth weight will have intravenous access, intravenous fluids and antibiotics infusing within one hour of admission to the NICU;
- 80 percent of high-risk newborns and newborns requiring resuscitation will have a pulse oximetry signal obtained by two minutes after birth;
- 80 percent of deliveries will use a checklist which includes a pre-briefing with the OB and nursery team and a post-resuscitation debriefing for high-risk deliveries;
- Increase the percentage of eligible neonates initially stabilized with non-invasive respiratory support in the delivery room to 75 percent; and
- Improve the timeliness of pulmonary surfactant administration to within 15 minutes of intubation for eligible neonates in the delivery room to 80 percent.

The ILPQC has been able to fulfill a critical need in promulgating awareness of key perinatal quality care issues and coordinating quality improvement efforts. The formation of the ILPQC is a major, sustainable accomplishment of the CHIPRA grant, as its continued efforts can disseminate child health quality improvements well beyond the life of the CHIPRA grant. During its tenure under the CHIPRA grant, the ILPQC has worked to secure additional funding sources to ensure its continuation in the future. While these efforts have led to funding and support from the Illinois Department of Healthcare and Family Services, March of Dimes, Illinois Hospital Association, Blue Cross/Blue Shield, and a federal Centers for Disease Control and Prevention (CDC) grant, each of these funding streams is time-limited and is not intended to support the ongoing operation of the ILPQC. Ongoing sustainable funding is needed to ensure this valuable state resource continues to exist.

### *Perinatal Quality Collaboratives – the Case for Continuation and Growth*

The state-level PQCs have proven to be a successful model in both Florida and Illinois—they have resulted in stakeholder consensus and support for improvements related to critical areas of perinatal care and have improved outcomes and reduced costs on a larger scale than could be possible without a coalition of perinatal care-related stakeholders working toward a common goal. Providers and hospitals realized many benefits from participation, including education, improved health outcomes, access to evidence-based tools and improvement science, peer-based learning, data to assess baseline and progress, and Maintenance of Certification/Continuing Medical Education (MOC/CME) credits. MOC credits for physicians for participating in quality improvement initiatives and CME/Continuing Education Unit (CEU) credits for participating in quality improvement education helps physicians maintain their professional certifications with the American Board of Obstetrics and Gynecology (ABOG) or the American Board of Pediatrics (ABOP). Results from a survey of the FPQC's Golden Hour project participants indicate virtually all felt the project positively improved teamwork in their NICU and that they made significant or sustainable improvement in delivery room management readiness as measured using the Institute for Healthcare Improvement (IHI) Assessment Scale for Collaboratives.<sup>12</sup> Likewise, physicians participating in ILPQC's face-to-face OB quality improvement meeting in May 2015 reported that participation in face-to-face quality improvement meetings is valuable, providing clinical best practice knowledge, collaboration and knowledge sharing with other teams, and tools to disseminate education to providers at their hospitals. State PQCs have become a respected

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<sup>12</sup> The IHI Assessment Scale for Collaboratives is available at <http://www.ih.org/resources/Pages/Tools/AssessmentScaleforCollaboratives.aspx>.

vehicle for disseminating critical perinatal education and awareness within the states, and are poised to be key partners with the state Medicaid agencies and health departments in coordinating quality improvement efforts in the areas that need it most.

The CHIPRA grant-funded key initiatives in both states have demonstrated improved outcomes and reduced costs, and have supported these collaboratives more broadly with infrastructure development. The groundwork has been laid in both states for their continuation and growth. This, however, cannot be achieved without additional, sustainable funding from other sources. Because of the need to piece together funding from a variety of sources, PQCs expend precious resources seeking funding that could be directed to quality improvement. Although PQCs have achieved reduced costs, those savings do not result in funds available to the collaboratives. Savings are attributable to the health care system in general. As such, the health care system more broadly (the federal government, states, public and private health plans and providers, including health systems) must realize the benefits of PQCs and their respective roles in supporting their development, growth and sustainability.

## Medical Home Learning Collaboratives

### *The Case for Medical Home*

While the concept of “medical home” originated with the American Academy of Pediatrics in the 1960s, it has garnered widespread focus since 2006 when the four major primary care medical associations in the United States – the American Academy of Family Physicians (AAFP), American Academy of Pediatrics (AAP), American College of Physicians (ACP) and the American Osteopathic Association (AOA) – published their “Joint Principles for the Patient-Centered Medical Home.” These principles describe care that is patient-centered, whole-person oriented, team-based, coordinated, readily accessible and focused on quality and safety. Emerging studies have shown that the medical home holds promise as a viable strategy to improve outcomes and control costs, and payers, including the federal and state governments, have promoted the medical home model. Federally, the government has included medical home as an important element in meeting the Triple Aim (improved population health and experience of care, at lower per capita cost), and both the Patient Protection and Affordable Care Act (ACA) and CHIPRA have promoted its use. State-level adoption of medical home programs has further proliferated its use on both public and private payer sides, including in Florida and Illinois. At the commencement of the CHIPRA Quality Demonstration Grant, the stage was set for using and evaluating the pediatric medical home model in Florida and Illinois.

### *Medical Home through the Learning Collaborative Model*

Pediatric medical home learning collaborative demonstrations were a significant endeavor of the CHIPRA grant in both Florida and Illinois. Unlike the state-level perinatal quality collaboratives, these provider-level learning collaboratives focused on a selected group of highly engaged pediatric practices that were recruited to participate in an intensive demonstration to transform their practices into medical homes. The learning collaborative demonstrations provided practices with strategies, tools, resources and technical assistance necessary to adopt medical home principles and provide patient- and family-centered care through a specific model that works to accelerate transformation and capitalize on shared learning opportunities. The demonstrations included a diverse

range of practices throughout each state, with the idea that successes could be built upon and brought to scale in a subsequent larger effort to transform pediatric practices into medical homes across the state.

The learning collaborative demonstrations include several key components:

- They bring together a multidisciplinary team from interested and engaged practices to implement the project.
- Over the course of 10-18 months, three in-person learning sessions were provided to educate the teams on particular facets of medical home and how to implement these concepts through quality improvement science and rapid cycle testing, while also providing an opportunity to connect face-to-face with other participating practices for collaborative learning.
- Action periods between learning sessions, where practice teams worked to implement the concepts learned; received follow-up technical assistance, resources and data feedback; and shared progress, barriers and lessons with the other engaged practices for peer-to-peer learning.

**Key Accomplishment:**

Florida and Illinois implemented pediatric medical home demonstration projects and provided practices with strategies, tools, resources and technical assistance necessary to adopt medical home principles and provide patient- and family-centered care.

**Key Focus:**

Transformation of practices to meet standard, nationally-endorsed medical home standards and principles.

The benefit of this approach is that it allows, and indeed requires, that a quality improvement intervention is developed iteratively and adapted to the specific circumstances and context of an individual practice, with broad support from the stakeholders within the practice and with the resources and benefits of cross-learning from other practices implementing like changes.<sup>13</sup> This approach spurs quality improvement and teaches a process. As such, the true value of a learning collaborative model is not only in the improvements made. This type of learning creates a culture change in the practice, teaching quality improvement methods and ways of implementing incremental and iterative change that can be utilized to continue quality improvement beyond the length of the demonstration.

#### The Florida Pediatric Medical Home Demonstration

The Florida Pediatric Medical Home Demonstration Project was administered by the American Academy of Pediatrics (AAP). Over the course of four years, two rounds of a quality improvement learning collaborative series were implemented, engaging a total of 34 pediatric primary care practices across the state of Florida. Throughout the entire process, an Expert Group consisting of representatives from primary care practice, specialty practice, the Florida Chapter of the AAP, Agency for Health care Administration, Florida Children's Medical Services, Family

<sup>13</sup> Taylor MJ, McNicholas C, Nicolay C, Darzi A, Bell D, Reed JE. Systematic review of the application of the plan-do-study-act method to improve quality in healthcare. *BMJ Qual Saf.* 2014;23(4):290-298.

Café, Health Management Associates, the University of Florida and the University of South Florida provided oversight of the project's design and implementation. From August 2011 through December 2012, a diverse group of practices, each with a three-member multi-disciplinary core improvement team leading the efforts in their practices, participated in Round 1 of the project. Each practice was also encouraged to include a parent partner in their improvement work. Specifically, 20 practices participated from August 2011 to April 2012, or Phase 1, with 16 of these practices continuing on from April to December 2012, or Phase 2. Practices were recruited through the Florida Chapter of the AAP and Florida state agencies.

In Round 1, Phase 1 of the project, pediatricians and their staff were provided strategies, tools and resources related to: enhancing access to care; providing family-centered care; providing and documenting planned, proactive, comprehensive care; and coordinating care across all settings. Such tools, resources and strategies are necessary—and designed—to strengthen medical homes' capacity to provide high quality, family-centered care for all children and youth, including those with special health care needs (CYSHCN). Phase 2 was added to allow additional time for practice transformation and for realizing the impact of the incorporation of new practice-based systems and processes. In Round 1, Phase 2, the practice teams added additional aims including to improve preventive care at the 24 month visit; improve acute care (pharyngitis); and improve chronic care (asthma).

Data collection included pre-, mid- and post- practice surveys, baseline and monthly record reviews and monthly progress reports. Teams also participated in a monthly educational webinar with the project's Quality Improvement Advisor in which aggregated monthly record review data, benchmarks and shared best practices were presented and discussed. Through the intensive, multi-day learning sessions, practice teams heard expert presentations on multiple facets of primary care transformation, and then developed a plan for implementing these concepts and approaches in their own practices.

A number of additional resources were offered as part of Round 1 of the project including:

- Education and training for designated care coordinators from each participating practice related to the care coordinator role and comprehensive care planning;
- Practice facilitation by expert facilitators that worked directly with individual practices to provide content expertise, tools for implementation and structure for the quality improvement project (a resource offered beginning in Phase 2);
- A secure, password protected Project Workspace Web site in which practices could access their record review data, tools and project news, updates and information; and
- An email group for practices to communicate with one another about resources, strategies and questions.

In lieu of continuing on with a Phase 3 of Round 1, project resources were directed toward building on the successes of Round 1 to engage and support a new round (Round 2) of additional primary care practice teams in medical home transformation and improvement. Fourteen practices participated from August 2013-April 2014, or Phase 1, with 13 of these practices continuing on from April-December 2014, or Phase 2. Many of the features of Round 2 mirrored those of Round 1 including Expert Group oversight; recruitment and orientation processes; quality measurement; use of the Institute for Healthcare Improvement (IHI) Breakthrough Series model and Model

for Improvement; practice facilitation; secure online Project Workspace; and project email group. However, there were multiple aspects of Round 2 that were quite unique and built upon lessons learned in Round 1, which are described in more detail below.

One thing that was clear from Round 1 was the importance of providing education to practices about the parent partner role and how to engage a parent in this role very early on in the project during the application and orientation processes. Therefore, during Round 2, practices were required to identify a parent partner as part of their core practice improvement team on their project application and were provided resources by project staff on what this role would entail. Additionally, a Parent Partner Quality Improvement Mentor was brought on board to further enhance the parent partner component of the project. The Mentor provided parent partners an orientation to the project learning sessions; provided plenary and educational sessions during the learning sessions; facilitated monthly check in calls with parent partners; and utilized the parent partner email group to provide coaching, motivation and quality improvement resources.

Another unique aspect of Round 2 was a Leadership and Mentorship Initiative. An informal assessment was used to select and invite a handful of Round 1 practices that were highly committed to the project and invested in medical home transformation to continue on as mentors in Round 2. The Round 1 practices provided mentorship to Round 2 practices and provided leadership and mentorship to others across Florida working on medical home implementation. The initiative incorporated in-person and virtual training sessions and addressed aspects such as leadership skills development. Round 1 mentor teams were surveyed (via email) to assess their needs, their successes and their comfort level with serving as mentors for Round 2 teams. The information gained was used to structure targeted, personalized support from the Leadership Initiative Facilitator in the form of conference calls and email communication.

Training and education specific to care coordinators within the participating practices, plus a dedicated email group and monthly email with resources sent by project staff, were again offered in Round 2 as in Round 1. While the approach in Round 1 was to offer care coordination training in virtual (webinar) and in-person formats, the approach in Round 2 was to offer a full day, in-person training given the additional value and benefit of this approach over virtual webinars. As such, a Florida Pediatric Care Coordination Training was held. Fifteen care coordinators participated in the training, including several members of the project Expert Group. A follow-up call was convened with the trainer and care coordinators to provide additional training, learn what attendees accomplished post-training (related to their action plans), to address any challenges/successes experienced and to allow for continued networking/sharing among the group. And lastly, an educational webinar on care partnership support was offered to care coordinators.

Finally, the Florida Pediatric Medical Home Demonstration Project sponsored a full-day conference on the pediatric medical home, *Blueprint for Success: The Pediatric Medical Home is Here to Stay*, in Orlando, Florida in February 2015. The conference was a huge success with approximately 130 attendees comprised of physicians, allied health providers and health care administrators. Expert faculty presented on such topics as behavioral health integration, electronic medical records (EMRs) and registries, chronic disease management, Florida's transition to a statewide Medicaid managed care program and child health care financing. Multiple participants from Rounds 1

and 2 of the Florida CHIPRA project presented on their work to transform their practice to a medical home. Fan Tait, MD, FAAP, AAP Associate Executive Director and Director, Department of Child Health and Wellness, provided closing remarks on the opportunities for the profession of pediatrics in a changing health care environment. A promotional video produced about the Florida CHIPRA project was debuted at the conference.<sup>14</sup> The video featured interviews with Florida CHIPRA project participants, including a parent partner, who highlighted the benefits of participating in the project and implementing a medical home as well as benefits of the medical home model for patients, families and healthcare providers. The conference also included a presentation from Illinois highlighting the CHIPRA project recommendations on medical homes. The evening prior to the conference, a pediatric medical home roundtable was held with members of the Florida Chapter, AAP Pediatric Council and other invited guests to identify a framework for future dialogue with public and private payers regarding financing accessible, quality health care for children in the context of medical homes. Roundtable participants identified a set of measurable, functional health outcomes to discuss with payers and for which to advocate that payers provide adequate payment.

#### The Florida Pediatric Medical Home Demonstration Successes

In addition to surveys and data analysis conducted by the AAP, the Institute for Child Health Policy at the University of Florida (IHP) performed an evaluation of the practices. IHP's evaluation was a four-year, longitudinal multi-stakeholder evaluation conducted to assess the short- and long-term effects of PCMH implementation. Practices completed a core clinical team survey each year and an analysis of CHIPRA Core Set performance measures was also conducted. In addition, the evaluation included a core clinical team interview, a practice staff survey, a community stakeholder survey (Round 1 practices only); and a cost effectiveness study (Round 2 practices only).

Several activities were implemented in Round 2 to gain additional qualitative feedback from practice teams outside of the "traditional" data collection methods mentioned above. A brief survey was distributed to practice teams to gain information on the extent of use of EMRs, which systems were being used by the teams and overall experience utilizing the EMR. In addition, a two-part process was implemented to gain feedback from practice teams as to their overall experience in the learning collaborative project as well as to query them on more specific aspects. This included an initial brief, online questionnaire (Practice Team Feedback Survey) followed by a more in-depth phone interview with the project Evaluation Consultant.

The practices made great strides in their medical home transformation and in sustaining the changes throughout the course of the project. The Medical Home Index (MHI) was used to assess practices across six domains related

#### Key Accomplishments:

Pediatric medical home demonstration projects resulted in improved outcomes, improved patient satisfaction and staff efficiency.

to the medical home model, including organizational capacity, chronic conditions management, care coordination, community outreach, data management and quality improvement. Over the duration of the project, the MHI mean score as well as individual domain scores increased for Round 1 and Round 2 practices in each year, with all MHI domain scores exceeding their respective

<sup>14</sup> <https://www.youtube.com/watch?v=aS-Tl4T51vU&feature=youtu.be>

benchmarks. On a 100-point scale, with 100 indicating the highest level of “medical homeness,” Round 1 practices achieved a 69.2 MHI mean score, while Round 2 practices achieved 64.3, a significant improvement over their baselines scores of 39.8 (Round 1, Year 1) and 48.8 (Round 2, Year 3), respectively.<sup>15</sup>

The evaluation also assessed practices’ adaptive reserve and the ability to make changes, as well as assessed the practice environment, staff engagement, communication with community stakeholders, parent partner experience, job satisfaction and burnout, and performance on key CHIPRA Core Set indicators.<sup>16</sup> The evaluation found that, overall, practices were able to make changes, improve teamwork, and enhance practice efficiency for staff and parents. Surveys showed that practices felt these changes improved patient satisfaction, increased staff efficiency and for the most part they were able to maintain them over the course of the project. Notable improvements were demonstrated in the following Core Set measures: adolescent well care, appropriate testing for children with pharyngitis, most measures of childhood immunization status and adolescent immunization status, follow-up after hospitalization for mental illness, the initiation phase of follow-up care for children prescribed ADHD medication, preventive dental services and dental treatment services. Additionally, parents in the demonstration group reported a higher level of satisfaction compared to those in a control group across all of the Consumer Assessment of Healthcare Providers and Systems (CAHPS) core composites. More than 80 percent of parents in the demonstration group reported positive interactions with their child’s provider. In addition, practices surpassed the Florida and national benchmarks for children with special health care needs receiving ongoing comprehensive care.

In addition, some quality gains specific to Round 1 practices include:

- Increase in adaptive reserve (Year 1=0.70 to Year 4=0.76)
- Consistent improvements in HIT integration (Year 1=0.58 to Year 4=0.68)
- Consistent improvements in cultural sensitivity (Year 1=0.80 to Year 4=0.85)
- Increase in the percentage of patients with an identified primary care pediatrician or physician-led care team (August 2011=73 percent; March 2012=94 percent)
- Increase in the percentage of patients who have a current copy of their medical summary or comprehensive care plan reviewed and offered to them at this visit (August 2011=16 percent; March 2012=60 percent)

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<sup>15</sup> While Round 1 practices had greater improvement, they had four years in which to improve, compared to only one year for Round 2 practices.

<sup>16</sup> ICHP’s evaluation reports of the CHIPRA medical home project include:

Florida Pediatric Medical Home Demonstration Project Evaluation (2011), Caprice Knapp, PhD, Vanessa Madden, Jacqueline Baron-Lee PhD.

Florida Pediatric Medical Home Demonstration Project Evaluation (2012), Caprice Knapp, PhD, Vanessa Madden, Shourjo Chakravorty, PhD, and Daniel Fernandez-Baca, MA.

Florida Pediatric Medical Home Demonstration Project Evaluation (2013), Caprice Knapp, PhD, Jacqueline Baron-Lee PhD, Shourjo Chakravorty, PhD, and Daniel Fernandez-Baca, MA.

Florida Pediatric Medical Home Demonstration Project Evaluation (2013), Caprice Knapp, PhD, Jacqueline Baron-Lee PhD, Shourjo Chakravorty, PhD, and Daniel Fernandez-Baca, MA.

Cost and Cost Effectiveness of Pediatric Medical Home Transformation (December 16, 2014), Florida CHIPRA Part C Medical Home Demonstration Project, Sheri Eisert, PhD, Ryan Brenn, RN, MPH, College of Public Health, College of Medicine, University of South Florida.

- Increase in the percentage of patients who have documentation of 1 completed standardized developmental screen at their 24 month health supervision visit (May 2012=62 percent; October 2012=86 percent)
- Increase in the percentage of patients with documentation of 1 completed standardized autism specific screening at the 24 month visit (May 2012=45 percent; October 2012=64 percent)
- Increase in the percentage of patients diagnosed with asthma with a current written asthma action plan reviewed and offered to them during their most recent visit (May 2012=36 percent; October 2012=57 percent)

Round 1 practices also improved on measures of processes and systems including:

- A process to identify and contact patients who are behind schedule for preventive services (reminder-recall system). (October 2011=45 percent of teams; March 2012=85 percent of teams)
- Established a system to identify, follow, and provide chronic condition management for children with special health care needs. (e.g., practice registry) (October 2011=30 percent of teams; March 2012=70 percent of teams)
- Invited at least one community organization to a quarterly practice team “lunch and learn” during which information was shared and introductions/personal connections with staff were made. (October 2011=30 percent of teams; March 2012=70 percent of teams)
- Start the day with a team “huddle.” (October 2011=45 percent of teams; March 2012=75 percent of teams)

#### The Florida Pediatric Medical Home Demonstration Lessons Learned

Several lessons became apparent throughout the course of the Florida Pediatric Medical Home Demonstration Project. Surveys indicated that several practice teams felt the collaborative learning approach was very helpful. More specifically, practices valued peer-to-peer learning opportunities that took place via the learning sessions and monthly calls/webinars. Improvements made on clinical and systems-based measures also exemplify the success of the collaborative approach. Working with individual practice facilitators and the individual attention that they were able to provide was also seen as a critical resource.

The medical home transformation process was also much more meaningful when data was utilized and analyzed on a consistent basis. Each month, practices reviewed their record review data to determine opportunities for improvement. The record review data and progress reports also helped project staff be better informed of challenges and successes at each practice and how best to assist practices.

EHRs were critical to the practices’ efforts to implement medical home transformation, but lack of IT support was cited as a major barrier, and difficulty in achieving the full functionality of the EHR and in incorporation of medical home tools therefore remained elusive for most practices.

Medical home transformation was perceived to be costly by the practices. A cost and cost effectiveness analysis conducted of a subset of Round 2 practices found that an average annual cost per practice to transform to a

pediatric medical home was \$131,943, though overall, a wide variation was found (\$44,445 to \$232,743). Tangible benefits and assistance are needed to defray costs and increase the perceived benefits, such as public and private payer alignment, local infrastructure support (provided by the Florida Chapter of the AAP), Maintenance of Certification (MOC) points and/or Continuing Medical Education (CME) credit, and stipends (parent partners). Without these types of support, providers are often unable to justify the costs of participation in the short-term, even with the long-term promise of improved patient care.

Each practice was asked to engage a parent partner during the project period. Parent partners attended learning sessions, calls/webinars and were asked to work hand-in-hand with practice teams to make improvements within the practices and to share their feedback. During Round 1, the need to provide parent partners with additional training on quality improvement concepts became apparent, as well as providing guidance to practices as to how to effectively engage the parent partner. To address this, parent partner breakout sessions on the topic of quality improvement were incorporated into learning sessions to increase their comfort levels and knowledge of quality improvement science and to better prepare parent partners to initiate their own tests of change in partnership with their pediatric practices. In addition, parent partners were given more clarity as to their role at the outset of the project in Round 2. These partnerships take effort, but the collaboration proved invaluable.

One major lesson learned is that practice transformation does take time—as does seeing the impact of the incorporation of new practice-based systems and processes. For these reasons, a second phase of the project was incorporated into both Rounds to offer practice teams an additional 8 months to build on gains made in Phase 1, work on several new clinical measures and to continue to improve their medical homes. Transformation is intensive work, but practices can successfully manage workload of incorporating project activities into their practice. Continued work will be needed to address areas that are still challenging for practices, such as staff turnover, communication with specialists and community stakeholders, and maintaining the parent partner relationship.

A tangential lesson learned was the difficulty in achieving NCQA recognition. While recognition was not the focus or intent of this initiative, some of the more advanced practices did attempt this on their own. Even for these practices that had numerous successes in medical home transformation, the process of recognition was challenging. The application process is rigorous and time-consuming, and documentation requirements are stringent. When one advanced practice applied for and was denied recognition, this was a deterrent not only to that practice, but to other practices that had looked to that practice as a model. From this experience, we learned that achieving recognition would require additional efforts beyond those involved in medical home transformation.

#### The Illinois Pediatric Medical Home Demonstration

While Illinois was determined to assist child-serving practices in medical home transformation at the outset of the CHIPRA project, its approach progressed throughout the course of the grant starting with a flexible approach and moving to more intensive initiatives providing more robust technical assistance and more stringent participation requirements over time. Beginning with a lower-intensity educational offering and technical assistance to a large

group of practices, Illinois' approach progressed over time to a learning group model with a more modest group of practices and eventually focused even further on a true learning collaborative model.

The Illinois Chapter of the APP (ICAAP) originally engaged 51 child-serving practices in the first medical home interventions, which began with a baseline self-assessment (using the NCQA PCMH tool) to identify the practices' strengths and gaps. Based on their results, practices were then offered the opportunity to participate in one or

**Key Accomplishment:**

Involvement in the demonstration has resulted in culture change in the practices in terms of quality improvement processes and small tests of change.

more programs that would support their transformation to medical homes, including an 18-month peer learning group that covered each of the NCQA PCMH standards and associated medical home improvement activities; technical assistance and education on the NCQA standards and the PCMH recognition process in the form of a webinar series

and telephone coaching; practice quality improvement activities focused on two CHIPRA core set measures—developmental screening and oral health—that include practice education and data collection to track improvement; and various on-line resources related to medical homes and the CHIPRA child health measures. While a multitude of resources were offered, practice participation was minimal. Illinois reassessed the value of these resources and ended them in the third year of the CHIPRA grant, deciding to focus resources instead on a learning group model. The PCMH learning group involved a subset of 15 practices in an 18-month learning group process, which was less rigorous than a learning collaborative but similar in that it featured three day-long learning sessions, action periods during which many practices completed PDSA cycles and facilitated group sharing. Learning sessions included content aligned with all NCQA PCMH standards. The aim of the learning group was to strengthen primary care practices as they work to become accessible, continuous, comprehensive, family-centered, coordinated, compassionate, and culturally-effective medical homes. Practices were encouraged to form quality improvement teams and incorporate parent partners into their work and received free resources, training, and technical assistance support during their participation in the project. This effort was designed to be very flexible, giving practices the ability to participate as little or as much as they desired and allowing practices to choose their own areas for improvement. With this approach, practices were not assigned specific measures or required to submit data, which precluded evaluation/documentation of improvement. The rationale for this was that practices would be able to focus on what was most important to them. The learning group used an expert workgroup to guide the development and implementation of the project. The workgroup consisted of representatives from pediatric practices, the Illinois Chapter of the American Academy of Pediatrics, a national quality improvement science consultant, and a clinician who is a national PCMH expert. The State's Medicaid Medical Director served in an ad hoc capacity.

The lack of structure and minimal expectations for practices resulted in inconsistent participation in learning sessions and group calls and very minimal participation overall on the part of many practices. Of the 15 practices, 12 participated in the first learning session, four in the second, and 13 in the third. Group calls were held following each learning session and practice participation was minimal, with no more than six practices participating in any of the calls. Practices that were the most engaged and committed benefitted from participation in the flexible learning group as documented by learning group evaluation surveys and the pre- and post-assessments. Only 9 of the 15 practices completed both the pre- and post-assessments. These were the most motivated practices as their

completion of both the pre- and post-assessment correlated highly with their participation in the learning group. For those nine practices, the average pre-assessment score was 28 and the average post-assessment score was 85.9, with eight of the nine practices passing all “must pass” elements. Qualitative information documented active attempts to change through PDSA cycles and improvements in some areas. A more structured approach may have benefitted more of the participating practices.

Building off these experiences, Illinois went on to develop a new, formal medical home learning collaborative, modeled after the AAP’s initiative in Florida and using the IHI Model for Improvement, to coach pediatric and family medicine practices through medical home transformation. The collaborative included a focus on asthma management to address specific medical home components, particularly care management. Through this project, 15 practices developed PDSA cycles to improve care for children with asthma by implementing medical home principles with a clinical focus on asthma care. Monthly data calls allowed practices to discuss, share and to be coached in improving care around key outcome measures.

The Illinois medical home collaborative demonstration utilized the same successful structure and model of the Florida demonstration, with Illinois adapting much of the same infrastructure and tools related to collaborative operation (e.g. pre-work packet, instructions for storyboards, forms and monthly call format). Illinois and Florida also shared an expert advisor to ensure that learning from the Florida demonstration related to the learning session and provision of technical assistance to the practices was applied toward the Illinois medical home collaborative. In addition to offering three 1.5 day learning sessions for participants, Illinois offered ongoing technical assistance which included practice facilitators for one-on-one coaching, monthly webinars to continue education, sharing of lessons learned, and monthly data collection and reporting on progress.

Illinois developed a curriculum for the collaborative that highlighted medical home concepts through the provision of evidence-based and best practices around pediatric asthma care. Highlights include:

- Use of an Expert Advisory Group to advise curriculum development and identify speakers, tools, and resources. The Expert Advisory Group also allowed the collaborative to offer CME credits to participating eligible clinicians.
- Focus on both clinical and operational improvements. Topics and speakers were selected that focus on evidence-based clinical practices (e.g. Immunologist perspective of care) as well as process and operational improvements that make care more patient-centered (e.g., appointment access, patient experience, engagement of parents).
- Focus on the parent and patient perspective. The collaborative engaged a Parent Expert that provided a parent and advocacy perspective to pediatric asthma care, which is prominently featured in medical homes. The Parent Expert has two children with severe asthma and is a leader within the state for successfully advocating for changes in state law to support children with asthma. The Parent Expert developed content for the collaborative to engage practices’ parent partners as well as educated providers regarding the experience of care, including barriers and challenges.
- Focus on use of health information technology to support clinical care and medical home concepts. In addition to facilitating discussion regarding how practices’ EHRs can support asthma care and medical

homes (e.g. registry function), the collaborative encouraged the integration and use of two state resources:

- IL Health Information Exchange Direct (ILHIE Direct). ILHIE Direct is a direct secure messaging (DSM) platform that can be used by providers to securely transmit health information between providers, especially those that do not have EHRs. The collaborative promoted its use between participating practices and schools and/or specialists that do not otherwise have data exchange capabilities.
- IL Statewide Provider Database (IL SPD). The IL SPD is a resource developed and maintained by IL Department of Children & Family Services (DCFS) in partnership with Northwestern University that maps medical and social support resources by zip code across the state. The collaborative focused on its use as a tool to support the continuum of care for patients.

### The Illinois Pediatric Medical Home Demonstration Successes

The collaborative used three main sources of data to monitor progress and determine the effectiveness of the program. Most of the data collection was aligned with the FL demonstration to enable comparison of results across the states. Sources of data include:

- Pre- and post-assessment using the Medical Home Index (MHI). Participants were asked to complete the MHI as part of pre-work (i.e., before the first learning session) and at the conclusion of the project to determine improvement in Medical Home-related functions.
- Monthly data reports. Participants were asked to submit monthly quantitative and qualitative data designed to measure the extent of improvement among practices. Aggregate data was shared in each monthly practice call along with a discussion of results. Facilitators also highlighted best practices and challenges as reported by the practices for group discussion.
- Learning Session evaluations.

Practice participation in the learning collaborative model significantly improved over the previous less structured learning group approach. There was 100 percent participation in the learning sessions and close to 100% participation in the monthly data calls. The practices showed measurable improvement in both adoption of medical home principles and in asthma care. For the period from April 2014 through January 2015, practices showed quality gains on the following measures:

- The percentage of patients that had their asthma severity, risk, and control assessed at the last visit (50 percent to 76 percent)
- The percentage of current Asthma Action Plans composed or reviewed and adjusted as necessary (26 percent to 63 percent)
- The percentage of patients/families that were offered and reviewed a copy of the current Asthma Action Plan (30 percent to 61 percent)
- The percentage of patients who received anticipatory guidance to obtain an influenza immunization (during flu season) (40 percent to 75 percent)

- The percentage of patients seen in the ED that were seen and/or given an appointment for follow-up within one week of discharge (61 percent to 92 percent)

Likewise, for the same period, the practices showed significant improvement on measures of processes and systems:

- Same day appointment availability for well visits (42.9 percent to 78.6 percent of teams)
- Protocol/system regarding Short-Acting Beta Agonist refills that includes frequency of refills/follow-up appointment (35.7 percent to 71.4 percent of teams)
- System to identify asthma patients seen in the ED/admitted to the hospital for asthma and document these occurrences (57.1 percent to 100 percent of teams)
- System to follow-up within a specified timeframe with patients seen in the ED/admitted to the hospital for asthma (50 percent to 92.9 percent of teams)
- System established to identify, follow and provide care management to children with asthma (registry function) 57.1 percent to 92.9 percent of teams)
- System for asthma condition management to identify or proactively remind clinicians and patients/families of needed services (28.6 percent to 57.1 percent) of teams
- Systematically plan for patient encounters (50 percent to 100 percent of teams)
- Complete a systematic assessment of the practice's cultural and linguistic, attitudes, practices, structures, and policies (28.6 percent to 50 percent of teams)
- Begin clinical sessions with a team "huddle" (35.7 percent to 92.9 percent of teams)
- Have relationships with local schools and coordinate care of pediatric asthma patients with the schools (21.4 percent to 50 percent of teams)

Pre- and post-assessment of practices using the long version of the Medical Home Index (MHI) showed overall improvement from Level 2 (Reactive) to Level 3 (Proactive). At the conclusion of the collaborative, in addition to completing the post-assessment, Illinois asked participating practices to also complete a "retrospective pre-assessment." This retrospective assessment was an attempt to determine the difference in practice perceptions of where they started based on their exposure to medical home principles in the learning collaborative. The hypothesis was that practices who complete a pre-assessment score themselves higher than they actually are because they may not fully understand medical home principles/expectations. After learning more about medical home, practices realize that they were not performing at the level they originally indicated. The retrospective assessment confirmed this hypothesis. The difference in the overall percent change between the pre- and post-assessment and the retrospective pre- and post-assessment was 29 percent compared to 46 percent. In the retrospective pre-assessment, practices scored themselves lower across every MHI domain.

The collaborative resulted in many successes. Practices identified asthmatic patients and created registries that were used for outreach and care management. Some practices resorted to manual processes to accomplish this and others were able to employ their EHRs. Asthma care improved as practices implemented asthma work flows, engaged in pre-visit planning, adopted asthma control tests, asthma action plans, and peak flow assessments, and used evidence-based practices. Practices established processes for notification of hospital and ER admits/discharges, tracked and monitored them, and scheduled follow-up appointments for patients. EHR functionality was maximized by structuring asthma data for uniform documentation, incorporating asthma order sets, asthma control tests, asthma action plans, and measuring performance. Staff competence improved through provision of external expert training on various aspects of asthma care and patient education. Patient education was provided on self-care and inhaler/spacer use, asthma education kits were created, parents were educated about 504 plans (written management plans outlining how the school will address a particular child's individual needs to allow the child to participate safely and equally in the school day) and provided input into educational materials. Performance data were shared within practices and successes were spread to other providers.

**Key Accomplishment:**  
Pediatric practices involved in the demonstrations improved the quality of care provided to their patients and families.

Of particular significance is the active role the practices took to change asthma care in their communities by partnering with schools. Practices educated schools that were not in compliance with the State's asthma law that allows children with asthma to carry rescue inhalers in the schools without physician authorization. As a result of the practices' efforts, many school districts across the State are now in compliance with the law. The efforts included engaging the IHSA (Illinois High School Association) in discussions to change their sports physical form to be compliant with the law. As a direct result, IHSA eliminated the physician signature requirement from their form. One practice engaged all community pediatricians and partnered with the local school district to conduct a series of asthma education sessions for parents and staff. Another practice implemented group appointments with an asthma clinic. Through this project, practices became excited and empowered about their ability to impact the health of the children in their practices and their communities.

These clinical improvements were obtained through medical home skills that were learned and implemented, including care management skills of case finding, risk stratification and intervention based on risk, care transitions, patient and family engagement and enhanced IT to provide panel surveillance and registry functionality. These areas have been reported throughout the literature as some of the most difficult areas for practices to implement, change and sustain. Tying these PCMH principles to a prevalent chronic condition like asthma contributed to provider and practice buy-in as well as the development of translatable skills that were spread to other areas of practice by the teams.

#### The Illinois Pediatric Medical Home Demonstration Lessons Learned

A number of lessons were learned as Illinois progressed in its approach to serve and promote medical homes. Principally, Illinois learned that organized, sustained efforts are more effective in making meaningful improvement than smaller, less intensive offerings. It was demonstrated early on in the process that offering educational opportunities to a wide audience was not effective in ensuring that there is actual change at the practice level. The medical home concept is very broad, encompassing many aspects of primary care practice, and the transformation

process is often seen as overwhelming to practices. A specific focus, such as asthma, allowed practices to adopt and integrate medical home elements and factors specific to asthma, which can then be spread to other chronic conditions and other aspects of care within the practice. This approach lends itself to in-practice spread and sustainability since lessons learned, processes, and policies implemented for asthma can be applied to other areas. For example, once a practice creates and regularly uses a registry function for asthma, it can easily be adapted to address diabetes or other conditions.

On a practice level, small, incremental and iterative change—a central tenet of the learning collaborative model—is a better alternative to taking on too much at once. Practices struggled with this concept, but once they completed a small test of change and gradually spread it, they embraced and valued this approach. Implementing these practice changes requires support throughout a practice, and because of this, practices that used a team approach showed better results. It is critical for the clinical lead to support and promote teamwork. One practice was particularly hard to engage in teamwork, sending only the physician lead to the first two learning sessions, and declining to involve practice care coordinators.

The incorporation of parent partners provides a powerful perspective to quality improvement work if initial barriers can be surmounted. The Parent Expert provided an invaluable perspective to the collaborative, really emphasizing the impact of the way care is delivered on patients and families. One session that was extremely well received involved the Parent Expert interviewing her two sons regarding what it was like for them to grow up with severe asthma, highlighting challenges with medication management, interacting with multiple providers, school, sports, socially, and within their larger family. This perspective helped motivate and guide practices in the design of their quality improvement work. In addition, each practice was asked to identify a parent partner from their own practice to participate in the collaborative. Six practices were able to successfully identify and integrate a parent partner, but many faced challenges including difficulty in identifying the right person and ability to participate due to time commitments. In order to assist with these challenges, the collaborative provided additional support to the practices including educational opportunities around effective recruitment and roles and structuring time at learning sessions specifically for parent partners to meet with the Parent Expert.

Key to driving incremental change is the ability to monitor improvements. Data is the single most critical factor for providing patient-centered care, transformation, and quality improvement work, and is used to inform decisions and actions. Illinois established a comprehensive data infrastructure in order to ensure that the services provided were proving to be effective. In addition to monitoring progress, it was also critical that the collaborative demonstrate to practices how data can and should be used to drive improvement. The collaborative helped practices develop the infrastructure necessary to continue to monitor and report data for quality improvement purposes, which is critical to sustainability.

The use of HIT is critical to success but significant challenges for providers remain. EHRs have the potential to improve practice workflow and quality of care, however, EHR systems need the features that truly support pediatric providers in providing preventive, acute and chronic care for their patients, and providers need to have the knowledge base, skills and resources available to utilize these functions. Many providers struggled with optimizing their systems to provide functions critical to medical home (for example, creating a patient registry). Some of the barriers encountered in using EHRs to their full potential include:

**Key Focus:**

Investment in robust, certified EHRs that support management of preventive, acute, and chronic pediatric care; and support for pediatricians and pediatric subspecialists to utilize these functions to meet Meaningful Use requirements.

- Many EHRs lack PCMH functionality;
- Some EHRs have PCMH functionality, but staff are not aware that it is available or simply have not been trained to use it;
- In health system environments, functionality may not have been deployed to practices;
- Also in health system environments, EHRs were purchased to address hospital needs or needs of adult patients and do not have functionality needed for pediatric primary care settings;
- There can be burdensome organizational requirements for requesting changes to the EHR;
- Simple changes or obtaining functionality that already exists but was not included in the basic EHR package is costly;
- Most practices did not have direct or any access to programmers or technical support staff;
- Practices did not have access to user manuals/guides;
- Frustration leads to manual workarounds, creating more work, and delaying receipt of the change or functionality needed; and
- Providers also struggled with getting adequate support from their vendors to have needs addressed, which occurred regardless of which EHR systems the practices used. In this collaborative more than half of the practices used the same EHR. Collaborative leadership was not successful in engaging the EHR vendor to meet with these practices as a group to discuss specific functionality needed for asthma care. The vendor indicated that each practice should contact their sales representative to discuss needs individually.

In addition to the challenges with EHRs, another barrier to the incorporation of HIT in medical home work flows is that practices did not fully understand the value of secure communication with community partners. The collaborative provided free subscriptions to the state's Direct Secure Messaging (DSM) product and practices were strongly encouraged to register for and use this service. Most practices declined to register, and those that registered did not use the service. A PDSA cycle was developed to use the DSM service to transmit asthma action plans to school nurses, but practices opted to fax the plans rather than use the secure messaging option. Some practices indicated that secure email was available within their EHRs but communication was limited to their respective network/health system with no capability to communicate with community partners. Other practices declined to participate because they did not want to pick up the cost of the service after the collaborative. Still others were not able to obtain approval within their organizations to use the service, either because of administrative or legal hurdles.

While the collaborative demonstrated great success in partnering with schools specific to asthma care, the practices were reluctant to consider other community connections. The practices were enrolled in the Illinois' Statewide Provider Database (SPD), which includes a wealth of medical and non-medical resources/services throughout the State. The SPD includes geomapping functionality and information that is not usually available, such as languages spoken, staff credentials and eligibility requirements. Although a few practices used the SPD and were able to locate needed resources, most practices preferred to rely on their own resource lists. Community organizations participated in the second learning session and considerable emphasis was placed on community connections. Practices were encouraged to utilize a PDSA cycle to host "lunch and learn" sessions with community partners to learn about resources for their patients. One of the Florida collaborative practices shared its success in using this approach via a webinar and shared best practices with the Illinois practices. Despite these efforts, the practices did not see the value in these activities/resources.

Overall, transformation is hard work and requires significant effort and resources. This project has demonstrated that transformation is driven by multiple and different motivators, including both financial and non-financial incentives/resources. Practices were motivated by a desire to improve asthma care, and practices perceived value in access to local experts, state agencies and asthma-specific resources (evidence-based guidelines, tools, asthma device kits, educational materials, patient/parent perspectives); the ability to work one-on-one with a practice facilitator; the opportunity to network with and learn from peers; the ability to learn how to implement quality improvement science and small tests of change; and the ability to spread the principles learned to other chronic conditions. While the availability of CME was also seen as a benefit to project participants, CME was not indicated as a main driver of participation but rather a "nice benefit." MOC was not provided. One provider shared that her involvement in the learning collaborative benefitted her patients more than previous projects that she had participated in that provided MOC.

While financial incentives were not provided to practices in this project, public and private payer alignment and incentives—including both financial and non-financial—are needed to promote, encourage and sustain medical home transformation system-wide. As a result of the work done through Illinois' medical home demonstration, the Department of Healthcare and Family Services (HFS) has integrated PCMH principles into managed care contracts. The managed care contracts now include requirements for health plans to include medical homes in their networks, provide education to practices about medical home principles, assess, rank and monitor practices as to level of medical homeness, and provide incentives to support transformation. The contracts also include many requirements that support medical home principles, such as requirements for care coordination, identification of chronic conditions, patient outreach, electronic sharing of health information, and integration of behavioral health. Additional requirements have been proposed for future amendments to the contracts.

### *Additional Medical Home Efforts in Illinois*

Dovetailing off of this medical home learning collaborative demonstration work, HFS convened a workgroup of stakeholders and advisors with leadership and representation from the Illinois CHIPRA grant team, to develop recommendations for the State of Illinois to promote the transformation of primary care practices to a medical

home model of care. The Illinois CHIPRA grant team drafted a resulting position paper,<sup>17</sup> which presented the key issues related to promoting medical home transformation and made the following five recommendations for HFS to adopt in order to expand the availability of medical homes for children:

- Define and use the term “medical home” consistently;
- Use a nationally recognized medical home recognition program for classifying medical homes;
- Provide financial and non-financial support for practice transformation to achieve medical home standards;
- Develop the processes, policies and oversight needed to promote and sustain medical homes, including aligning medical home incentives across HFS programs and involving private payers in spreading and sustaining medical homes; and
- Evaluate and report on the impact of medical home recognition.

The Illinois workgroup’s evaluation of the accumulated research on the components, costs, incentives, recognition/accreditation options and evidence of effectiveness of the medical home substantiated the experiences of the medical home demonstrations in both states. The evaluation of the body of medical home evidence, and the subsequent recommendations derived from this evidence, indicated that medical home transformation is driven by multiple motivators—both financial and non-financial incentives and resources—and that public/private alignment of these incentives and resources is needed to promote, encourage and sustain medical home transformation. The recommendation to use a nationally recognized medical home recognition program for classifying medical homes serves to promote public alignment with privately funded health plans that are already using these national programs. In addition, it ensures consistency with a well-recognized, respected and vetted set of standards that are based on The Joint Principles, as well as consistency with established procedures and processes for ensuring that those standards are met. Utilizing a nationally recognized medical home recognition program eliminates the need for the State to use limited resources to develop and monitor a state-specific recognition program, as several other states have done.

#### Florida and Illinois PCMH Recognition Facilitation Project

Lessons learned in Florida’s and Illinois’ medical home work relating to the demonstrated value of achieving recognition through a national program, along with the difficulty in achieving this goal without additional assistance, led to an additional medical home effort. This initiative, a collaborative venture of both states, involved four practices—two in Florida and two in Illinois—who were working to achieve NCQA PCMH recognition. NCQA-trained PCMH Certified Content Experts were assigned to each practice to provide technical assistance by developing a strategic work plan based on the practice’s current progress; reviewing and assisting with policy documentation; translating and clarifying NCQA standards, elements and factors; review the NCQA PCMH application; and provide educational and collaborative learning opportunities and other resources, such as webinars, virtual training, and tools. With the technical assistance provided, one Illinois practice achieved NCQA

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<sup>17</sup> Recommendations on incentives to promote the voluntary adoption of medical home principles by HFS’ providers of primary care services to children: Position Paper. March 2014.

Level 3 recognition, and one practice continues to utilize technical assistance as it works on its corporate application.

**Key Accomplishment:**

Florida and Illinois leveraged lessons learned in the pediatric medical home transformation work to develop an initiative that directly assisted practices in applying for NCQA PCMH recognition.

Through providing direct technical assistance to these practices, the project gained an understanding of practice needs for transformation to the PCMH model of care, including understanding the resources and effort necessary for practices to achieve PCMH recognition and identifying transformation areas and processes that are the most challenging for individual

practices. With this knowledge, the project developed a medical home toolkit of key resources to share with practices and inform the medical community and federal and state policy makers of needed resources.<sup>18</sup> The toolkit includes an assessment tool, strategic plan, a timeline, tracking tool, element/factor overlap crosswalk, documentation submission checklists, and a documentation library that provides examples of documentation that meets NCQA standards. Several learning collaborative practices, as well as others working to implement medical homes, are currently testing this toolkit.

## Performance Measurement and Reporting

The initiatives completed through the CHIPRA grant relied on ongoing and credible performance measurement. The projects described above show how performance data was a critical component of each project, from

**Key Focus:**

Ongoing and credible performance measurement and reporting at the provider, plan and state level designed to achieve buy-in and engagement in quality improvement.

inception to completion. In addition, recognizing the imperative role that credible performance data plays in quality monitoring and improvement, CMS' CHIPRA Quality Demonstration Grant opportunity included a component dedicated to developing and testing the calculation and reporting of federally selected key children's quality measures. In these ways – both as an overarching, key federal priority, as well an essential factor

woven throughout each CHIPRA grant initiative – the measurement and evaluation of quality measures was the backbone of Florida and Illinois' CHIPRA grant work.

### Performance Measurement as a Component of CHIPRA Grant Initiatives

Ongoing and credible performance measurement and reporting—both at the provider and state level—served several key purposes throughout the continuum of each project. The importance of performance measurement and reporting has been demonstrated in the perinatal and medical home projects described thus far in this paper, and was the single most critical factor in designing and assessing quality improvement work and informing decisions and actions. The continued use of data, from initial project design, to continuous evaluation, to final

<sup>18</sup> Achieving NCQA PCMH Recognition: A Toolkit for Practices Seeking to Apply. August 2015.

results and assessments of scalability and sustainability, is demonstrated in the examples below from each stage of a quality improvement project:

- **At the Outset:** Performance data helps achieve buy-in and stakeholder engagement in projects. For instance, compelling data on early elective deliveries rallied stakeholders around working together to implement quality improvement.
- **During the Project:** Ongoing performance data collection allows for the continuous evaluation of interventions, and frequent assessment of whether small tests of change are having the intended effect. For instance, data fed the PDSA cycles implemented by the medical home demonstration pediatric practices, and resulted in adjustments to the interventions for individual practices to better move them along the continuum toward medical home transformation.
- **At the Conclusion:** Performance data allows for an assessment of the overall results of a project, and contributes to the discussion on whether those results are scalable and sustainable. For instance, VON data for the Neonatal Catheter-Associated Blood Stream Infections project depicted successes of that work that should be sustained and brought to scale, identified where additional quality improvement projects could be focused, and helped secure hospital participation in these ongoing efforts.

## Performance Measurement and Reporting – a Key Federal Priority

In addition to its critical role in Florida’s and Illinois’ perinatal and medical home quality work, the states pursued a grant activity solely focused on collecting and reporting on quality measures. Measuring and reporting on a federally selected Core Set of Children’s Health Care Quality Measures for Medicaid and CHIP was a key federal priority of the CHIPRA grant, as well as using these measures for quality improvement.

### *Reporting the Core Set of Children’s Health Care Quality Measures*

Both Florida and Illinois advanced to being able to report 96 percent of Core Set measures, including all of the measures in the original Core Set that were ultimately required for reporting and two of the three new core set

#### **Key Accomplishment:**

Florida and Illinois publicly reported the Core Set of Children’s Health Care Quality Measures, expanding the scope of reporting over the course of the grant.

measures released in January 2013 and added to the Core Set.<sup>19</sup> Each year, the states have been able to publicly report on this work, releasing in depth reports showing the measurement specifications, rates, trending over time and comparison to benchmarks.<sup>20,21</sup>

The collection and reporting of these measures has required extensive resource allocation and continual “care and feeding” year after year – in addition to the actual calculation and reporting, the states needed to adjust measure

<sup>19</sup> Neither state reported the Behavioral Health Risk Assessment for Pregnant Women measure. While Illinois reported 96 percent of measures in 2013, in 2014 the State reported 91 percent, deferring CAHPS reporting until 2015 due to changes in the State’s managed care structure.

<sup>20</sup> FL reports can be found here. <https://www.healthmanagement.com/what-we-do/government-programs-uninsured/chip/chipra-library/#quality-measures>

<sup>21</sup> IL reports can be found here. <http://www2.illinois.gov/hfs/SiteCollectionDocuments/20092012CHIPRADatabook.pdf>

calculations for changes in the federal specifications and data sources, and add new measures as they were added to the Core Set. In the absence of grant funding going forward, the burden of continued reporting would be an individual state decision as to whether continued resources could be allocated. Florida and Illinois took different approaches in reporting the measures during the grant period. Florida contracted with the Institute for Child Health Policy at the University of Florida (IHP) to collect and report on the measures. Illinois utilized its existing Enterprise Data Warehouse and enhanced its infrastructure, staff, and expertise, integrating performance measurement into its ongoing operations. Post-grant, core set measures have been added to the KidCare Evaluation Contract in Florida. Illinois is developing an “Illinois Core Set” of measures, which will include some child core set measures, as well as some of the measures in CMS’ Core Set of Adult Health Care Quality Measures for Medicaid (Adult Core Set). In Illinois, the CHIPRA project resulted in improvement in data quality, reporting efficiencies, measure alignment, and a formal measures committee that makes informed decisions to continually improve performance measurement data and processes. In addition, the CHIPRA project has resulted in improved knowledge and expertise of the staff involved in performance measurement. Illinois took the significant step to include many of the Core Set measures in managed care plan contracts. All managed care contracts in the State now include at least 14 Core Set measures. This will allow for the ongoing reporting of these measures for populations enrolled in managed care plans. In Florida, Core Set measures have now been included in the KidCare Evaluation contract as well as in Medicaid managed care contracts for ongoing reporting. Continued federal support to maintain the Core Set and encourage its use will be critical to give “teeth” to these measures and to support states’ efforts to keep plans engaged in data reporting.

### *Moving Beyond Reporting – Using the Measures for Quality Improvement*

Once measure calculation and reporting processes were well established, Florida and Illinois were prepared with a robust set of measurements and some trending data and ready to move on to the next phase—using the measures for quality improvement. Initial assessments of the data showed that many areas were below national averages, and it was unclear how to best allocate state resources toward all of the potential improvement opportunities. Focus and direction on how to proceed was not discernable from data reporting alone—it would require significant additional effort to understand the data and make informed decisions. As a result, Florida and Illinois jointly developed an objective method for assessing the Child Core Set measure rates to determine which measures should be targeted for quality improvement. The intention of this activity was to help the states in determining how to allocate limited state resources toward the opportunities where performance improvement efforts could have the greatest impact. The outcome of this effort was an assessment tool that evaluated measures according to three key dimensions: measurement year performance compared to national benchmarks, measurement year performance compared to prior year performance and measure amenability to quality improvement. A matrix was developed that combines and organizes these dimensions into a single diagram to allow the state to readily assess through a simple visual display where the greatest opportunities for performance improvement are across the many measures of child quality.

Since its inception, Florida and Illinois updated the assessment tool annually to assess the current year’s rates, identify new opportunities for improvement, and assess progress on measures previously identified. Florida and Illinois will be able to utilize the tool subsequent to the CHIPRA grant to continue to assess the measures that they report. In addition, the assessment tool has broader utility for other performance improvement stakeholders and

other measurement sets, e.g., the Adult Core Set, as it is easily adaptable to other assessment purposes. The concept of a single, easily interpretable infographic that concurrently displays several key dimensions of assessing improvement opportunity is something that can be adapted to fit a myriad of purposes. To help spread this work, Florida and Illinois developed an Issue Brief<sup>22</sup> to discuss the creation and functionality of the assessment tool, which was shared widely through the federal website dedicated to the National Evaluation of the CHIPRA project and presented the tool during a poster session at the annual CMS Quality Conference in 2014. The sustainment of this tool and its spread to other purposes more broadly will be a significant enduring accomplishment of the CHIPRA Quality Demonstration Grant.

## Key Focus Areas and Opportunities for Stakeholders

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This report describes some of the major accomplishments of Florida and Illinois' CHIPRA Quality Demonstration Grant, many of which will endure as a critical legacy in these states and serve as a model to be replicated or adapted in other states and environments. This report also describes the challenges faced, and lessons learned, as the states implemented these endeavors. Together, these diverse accomplishments and lessons support some consistent themes, culminating in key focus areas and ways in which they can be supported. The discussion for each of these foci synthesizes the valuable insights learned and reveal opportunities for stakeholders to further the impact of this grant by spreading and implementing improvements to child health care quality.

The key focus areas of the Florida-Illinois CHIPRA grant are:

- Transformation of practices to meet standard, nationally-endorsed medical home standards and principles.
- Quality collaboratives that teach quality improvement methods and improve care.
- Ongoing and credible performance measurement and reporting at the provider, plan and state level designed to achieve buy-in and engagement in quality improvement.
- Investment in robust, certified EHRs that support management of preventive, acute, and chronic pediatric care; and support for pediatricians and pediatric subspecialists to utilize these functions to meet Meaningful Use requirements.

Principally, the Florida and Illinois CHIPRA team recommends that Medicaid and CHIP should optimize health outcomes for women and children by ensuring a high-quality health care system that utilizes standard, nationally-endorsed quality measurement; evidence-based quality improvement science at the provider, plan and state level; the meaningful use of robust, certified electronic health information technology; and public/private collaboration and alignment. Stakeholders of all types—federal and state governments, health plans, providers, patients, families and their advocates, academic medical centers and professional organizations—all have critical responsibilities in improving, spreading, and maintaining the quality of health care for children. Next, this report will detail their respective roles—collectively and individually—in implementing and supporting the key focus areas

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<sup>22</sup> Issue Brief: “Moving Beyond CHIPRA Reporting: The Creation of an Assessment Tool to Analyze Opportunities for Improvement”

of Florida and Illinois' CHIPRA Quality Demonstration Grant. Only through collaboration and mutual efforts to spread and sustain the accomplishments can the full potential of the Florida-Illinois CHIPRA Quality Demonstration Grant be realized.

***Focus: Transformation of practices to meet standard, nationally-endorsed medical home standards and principles.***

### *Implications of the CHIPRA Grant Experience*

The Florida and Illinois CHIPRA grant experience has visibly demonstrated that transforming pediatric care to the medical home model offers substantial improvements in the quality of care that children receive as well as in patient and provider satisfaction. Without the collaborative infrastructure, resources, supports, experts, and facilitation, few of the collaborative practices would have been successful. Promoting this transformation through nationally-endorsed medical home standards and principles supports the alignment of public and private payers and provides standardization and consistency across practices, systems and states. As a result of the CHIPRA grant experience, **we suggest transformation of practices to meet standard, nationally-endorsed medical home standards and principles.** The sustained, system-wide transformation that is needed to achieve large-scale improvements in child health care quality through wide-scale implementation of the medical home model requires the support and alignment of stakeholders across the healthcare continuum. This system-wide transformation is reliant upon government-endorsed standards and incentives; payer support and alignment; hospital and provider uptake; advocacy organizations to convey the value to patients and families, who in turn must choose value; and academic medical centers and professional organizations to properly educate and train the workforce to take their place in this paradigm.

### *Opportunities for Stakeholders*

#### *Federal government*

At the federal level, the government could set or endorse medical home standards across all payers. This would provide states with the impetus and the authority to contractually require and incentivize their health plans and providers to support and become medical homes, promote multi-payer alignment, and provide a uniform point of comparison and lead to national benchmarks and standards by which a state-level program can be accurately measured for effectiveness.

#### *State government*

States could have a role both in facilitating and in encouraging medical home transformation. States could build medical home expectations into their managed care contracts, requiring both health plans and providers to assume their respective roles in the system's medical home transformation. States would have a role in overseeing these contractual provisions, and could build adequate capacity to fulfill this role as needed, including within the organizational areas responsible for oversight of Medicaid, managed care, insurance, and public health.

Additionally, states could adopt a state requirement for practices to be recognized under any of the nationally-recognized medical home programs. All of these programs are based on The Joint Principles and have similar standards. This approach would eliminate the need for practices to meet different requirements for different payers. Having a requirement to be recognized is an incentive for practices to transform.

There are a variety of ways in which states can support medical home transformation including:

- State-level incentives to support the transformation process, promote the achievement of nationally-endorsed PCMH recognition, and reward providers for serving as medical homes through both financial and non-financial methods. Transformation takes time, effort and investment, and providers are not poised to do this on their own. States could consider upfront lump sum payments to support providers through this process.
- Ongoing support to maintain medical home functions, either through a care coordination fee or other add-on to the current payment model.
- Assessment/restructuring of quality incentives. States could further recognize that an upheaval of the current model of care will result in changes—in both the short-term and long-term. Quality incentives currently in place could be reviewed to determine their value under the new paradigm, and restructured, if necessary.
- Structure incentives in ways that recognize shifts in care. States could be cognizant of relevant shifts—for example, successful medical homes decrease overall costs but result in increased primary care, shifting utilization away from the emergency rooms and hospitals and into the primary care setting—and structure incentives and metrics in ways that reward these shifts, and mitigate collateral consequences of the change (i.e., ensuring stability of the hospital systems as revenue decreases).
- Providing non-financial incentives. Non-financial incentives are powerful, and just as critical to the success of system transformation—promoting the needed training and practice support for incorporating case managers and care coordinators, providing practice support in terms of electronic health records that support the medical home, acknowledgement and promotion of providers that achieve medical home standards and the reporting of quality data. Reporting data and the acknowledgement and promotion of medical home providers creates transparency and support for patients and families to understand that quality matters, so that they can select providers accordingly. Patients and families could be assisted in this effort by providing information in ways that are understandable to the lay person and are available at times when the information would be most helpful, e.g., at enrollment.

### *Health Plans*

Health plans of all types—Medicaid MCOs, Title V, private payers and state employees' health plans alike—could align expectations and requirements of their provider networks to ensure clear and consistent standards and aligned payment methodologies. A medical home, by its very definition, cannot exist for only some patients, or only some providers within a practice. The model of care encompasses all patients, all providers—and payers should recognize and collaboratively encourage this transformation for the mutual benefit of the patients, providers and payers involved. If state governments fulfill their roles in requiring, facilitating and supporting medical home transformation, health plans will be compelled to adjust to their new contractual obligations. Health plans should be prepared for, and be partners and leaders in, this effort. Health plans also have a role in sharing and reporting data and promoting medical home providers to patients and families.

*Providers*

Providers, in turn, could assume their role in implementing the transformation and becoming medical homes. The process of change is considerable and may seem a formidable challenge for many providers, particularly those in small group or single provider practices. However, the support offered from the state and health plans, if they adopt the suggestions provided here, could provide significant encouragement and assistance in overcoming these obstacles. Despite the short-term challenges associated with substantially altering the current care delivery model, the long-term gain to the patients and the practice—both in terms of quality of care and satisfaction—would provide the further impetus to invest the time and resources in the transformation. Once they have become medical homes, providers could work to educate patients and families on the value of seeking care through the medical home, and promoting their status as a medical home provider.

*Patients, Families and their Advocates*

Receiving care from a medical home instead of a traditional model of care offers distinct advantages to the patient and family. The receipt of team-based, coordinated care that is focused on the person is associated with higher satisfaction and better health outcomes. Patients and families have a powerful role in promoting this type of care—they can select higher quality and “vote with their feet.” Understanding that quality matters and choosing to receive care from providers recognized as medical homes provides the critical incentive for system change—providers will be more motivated to change practice patterns if their patient volume is adversely affected otherwise.

Advocacy organizations, in turn, can educate patients and families so that they understand what the medical home is, the importance of quality care and how it makes a difference in their health and patient experience. These organizations could help patients and families access data and information on quality of care so that they can tell where to find it and how to select a better form of care. Advocacy organizations could work to empower their members, educating them so they can impact the quality of care that they receive—by choosing providers that offer higher quality care and by taking an active role in their care.

*Academic Medical Centers and Professional Organizations*

Academic medical centers can prepare the workforce for working within a medical home and professional organizations can provide continuing education. Providers need training in the medical home model of care and to understand their role, as well as those of their team members. This training could occur at the outset, while providers are still in training, as well as on an ongoing basis with continuing education opportunities for practicing providers.

In addition, a suitable workforce of care coordinators and case managers will be needed to satisfy the demand for these services within medical homes. Like clinical providers, training could be provided for new care coordinators and case managers, as well as continuing education for those who are already in the field. Academic medical centers and professional organizations are poised to provide and support the educational and training needs of a workforce that is adequately prepared to implement the medical home model system-wide.

## *Focus: Quality collaboratives that teach quality improvement methods and improve care*

### *The CHIPRA Grant Experience*

Under the CHIPRA Quality Demonstration Grant, both Florida and Illinois have successfully implemented quality collaboratives at the state level, with the Perinatal Quality Collaboratives, as well as at the provider level, with the medical home learning collaborative demonstrations. These collaboratives have shown impressive results across the board for publicly and privately insured individuals, not only improving health outcomes for patients, but also benefiting providers with improved education, access to evidence-based tools and improvement science, peer-based learning, data to assess baseline and progress and continuing education. As a result, these collaboratives have resulted in improved satisfaction for patients and providers, better outcomes and lower cost—a resounding achievement of the Triple Aim. This work has been so demonstrably successful that **we suggest quality collaboratives that teach quality improvement methods and improve care**. The quality collaboratives launched and supported through the CHIPRA Quality Demonstration grant required the buy-in, engagement and support of stakeholders across the healthcare continuum, and the benefits likewise accrued across the continuum. To date, these efforts have been possible primarily through grant opportunities or demonstration projects, but quality improvement requires infrastructure and ongoing sustainable funding. Ongoing and additional quality collaborative work will require government-endorsed incentives and support; multi-payer support and alignment; provider, patient and advocate engagement; and academic medical centers and professional organizations to bring the efforts to scale.

### *Opportunities for Stakeholders*

#### *Federal government*

At the federal level, ongoing sustainable funding could be made available for statewide and national quality improvement efforts. Federal requirements can further support quality improvement, as evidenced by the CMS proposed rules for states to develop comprehensive statewide quality strategies. In addition, federal alignment of quality improvement efforts/requirements across federal programs such as Medicaid/CHIP and Title V Maternal and Child Health would further support a comprehensive approach.

#### *State government*

States could have a substantial role in implementing, engaging in and supporting quality collaboratives, and in promoting an ongoing quality improvement infrastructure. State engagement in state-level quality collaboratives, such as the Perinatal Quality Collaboratives, is critical. These groups represent a cohesive alliance working toward a common goal, and the state could have a voice in that – as well as an ear. These collaboratives are well poised to advise the state on the most imperative areas of improvement needed, and states would need to be able to respond accordingly. Quality collaborative demonstrations have repeatedly shown success in decreasing costs and improving outcomes. States could invest in ongoing statewide efforts to promote quality.

The statewide approach and infrastructure of the perinatal quality collaboratives in the hospital setting could be adopted for provider-level quality improvement in the ambulatory setting. A formal statewide effort is required to disseminate best practices, educate providers on quality improvement science/methods and assess improvement.

States can also provide support—financial and in kind—to sustain the independent efforts to improve quality across all payers. Allocating resources to quality improvement would help to launch and sustain these collaboratives, and would allow quality collaboratives to focus resources on quality improvement work rather than chasing grants and time-limited funding sources.

Moreover, states can support quality collaboratives by demonstrating that quality *matters*. To do this, state policy makers could ensure that quality improvement is a statewide priority, and that the culture in government agencies reflects that. This could include providing education to state employees and restructuring organizations as needed to be able to react to issues and recommendations that arise from the efforts of quality collaboratives and other quality improvement efforts. For example, In Florida, the Agency for Health Care Administration established a Medicaid Quality Bureau, which includes staff focusing on performance measures and evaluation, clinical quality monitoring, and quality improvement initiatives. One of the goals of this new bureau is to support managed care plan quality improvement activities by connecting the plans to other agencies and groups throughout the state who are working on related quality improvement initiatives. In Illinois, HFS created a Bureau of Quality Management (BQM) with the mission to serve as a focal point within the agency to define, measure and evaluate the quality of health care services provided to enrollees and to use data analytics and evidence-based practices to drive continuous quality improvement. While BQM's staff are committed to quality, it has been a challenge to spread that culture throughout the agency and to other state agencies. Through the CHIPRA grant, the knowledge base of BQM staff has increased, however, many more agency staff need exposure to quality improvement science. In addition, a formal quality infrastructure needs to be in place, involving all internal and external stakeholders.

State efforts could be coordinated—with external stakeholders, as well as across state agencies. Ensuring that state agencies are collaborating on quality improvement efforts will reduce duplication and confusion or working at cross purposes and will ensure that state resources are best allocated as needed. Quality improvement is a sound investment with high returns. Its potential could be maximized with state involvement.

#### *Health Plans*

Health plans can participate in quality collaboratives directly, as well as align payment methodologies to help support provider efforts to engage in quality collaboratives. Quality collaboratives demonstrate reduced costs, and these savings can accrue to payers. Moreover, provider participation in quality collaboratives—whether a solo provider in a small-scale provider-level collaborative or a large hospital system in a state-level collaborative—function as a testing ground that can demonstrate efficiencies and savings that when brought to scale could result in significant savings for payers. Health plans could encourage and support efforts, including aligning payment methodologies with positive outcomes and other payers to incentivize participation.

A major barrier cited by providers in participating in improvement initiatives, particularly in medical home transformation, is misaligned or conflicting incentives by different payers. When a provider's patient population is divided across several different payers, an incentive from a single payer may not be sufficient to encourage involvement in the improvement activity. Health plans can have a role in collaborating with other payers to improve the care delivered to all patients – a siloed approach is not effective. Alignment is not likely to occur without federal and/or state intervention or mandate.

#### *Providers*

Providers have a significant opportunity and a major role in implementing the improvements in patient care as prescribed by the collaboratives. Participation in collaboratives provides education related to improvement science and best practices of care, access to invaluable evidence-based tools, resources and technical assistance and the opportunity to participate in collaborative learning with other providers. Providers could seize these opportunities to participate in quality collaboratives—for both the substantial benefits that accrue to the provider, as well as the considerable differences it can make in patient care and the health outcomes of their patients. Providers need to be open to participation, and willing to invest the time and resources in engaging and making needed changes, with an appreciation for the long-term gains that are possible over the short-term investments. And, once involved and invested, providers could take a leadership/champion role with others to provide mentoring and promote spread. Providers could also involve patients and families on quality improvement teams and solicit patient and family input regularly.

#### *Patients, Families and their Advocates*

Patients and families are the direct recipients of the care that a practice is working to improve, and thus have a vital role in supporting quality collaboratives. Patients and families can take ownership and responsibility for communicating needs and concerns to providers either directly, through patient surveys, or through involvement in quality improvement teams. It is important for patients to provide input on what practices are doing well and what they can improve, and they should capitalize on provider efforts to involve them in decision-making and attempts to elicit feedback. Patient suggestions and input can be powerful motivators for practice change to drive improvement.

Advocacy organizations can educate patients and families so that they understand the importance of quality care and how it makes a difference in their health and patient experience. Advocacy organizations could work to empower their members, teaching them that they can impact the quality of care that they receive—by voicing their needs and concerns, gaining education, practicing self-management, and participating in quality improvement opportunities or surveys.

#### *Academic Medical Centers and Professional Organizations*

Academic medical centers and professional organizations have a role in bringing the efforts of quality collaboratives to scale. The evidence-based practices espoused in quality collaboratives could be embedded in the learning opportunities for new and established providers using statewide models in order to bring to scale the improvements seen through collaborative demonstrations. Academic medical centers and professional

organizations are poised to do this, and so could have an active role in the quality collaborative efforts in the state and nationally.

***Focus: Ongoing and credible performance measurement and reporting at the provider, plan and state level designed to achieve buy-in and engagement in quality improvement***

***The CHIPRA Grant Experience***

Throughout the initiatives of the CHIPRA Quality Demonstration Grant, the need for relevant, reliable, and up-to-date performance metrics was evident. Data plays an integral role in all initiatives for improvement. These metrics are needed at every step of a quality improvement initiative—from the outset to identify the improvement opportunity and achieve stakeholder buy-in and engagement; throughout the project to assess progress toward goals and the need to modify interventions; and at project completion to measure the final results and determine feasibility of sustaining and spreading the gains. Providers who gained access to their data through the medical home demonstration project realized significant benefits—they were able to identify the areas in which they needed improvement, compare themselves to others and were able to modify their processes and see the results. State-level Child Core Set measures allowed the states to oversee health plans and member care on dimensions not previously monitored. Data analyzed for the Perinatal Quality Collaboratives identified opportunities for additional initiatives and strong results helped to achieved stakeholder buy-in and secure additional financial support.

Performance measurement is the backbone underlying each successful CHIPRA initiative, and as a result of this work **we suggest ongoing and credible performance measurement and reporting at the provider, plan, state, and federal levels designed to achieve buy-in and engagement in quality improvement**. Stakeholders have a vital role in supporting the measurement and use of these data to ensure their continued availability.

***Opportunities for Stakeholders***

*Federal government*

The federal government can play a critical role in supporting states in their efforts to measure and assess plans and providers based on quality. To allow states to continue to report on the CHIPRA Core Set measures, the federal government must update and maintain this data set. States need benchmarks to be able to assess their performance, and without widespread state buy-in, states have little impetus to use these measures for quality improvement. By the federal government maintaining these data and endorsing their use, it gives states “teeth” in compelling their health plans and providers to report these measures. Quality requirements could be set in federal CHIPRA and other legislation, which would allow states to objectively include these measures in health plan requirements.

Standardized performance measures could be expanded beyond Medicaid/CHIP to all payers. The federal government could seek to align performance measures across all federal agencies and other national quality

organizations to reduce the burden on states, private payers, and providers. The federal government could also provide flexibility and support for states to adopt alternative payment models that reinforce quality.

#### *State government*

States can assume their role in enforcing reporting and paying for quality. States could include in their managed care contracts clear requirements for reporting on the Core Set measures, and encourage quality that aligns with this goal, including incentives. State policy makers could allocate resources toward performance measurement, recognizing its critical role in performance assessment and improvement.

States can collect and provide transparent reporting on these measures, in ways that are accessible to and appropriate for health plans, providers, patients and families. This reporting could include state-level benchmarks by which performance can be gauged (and incentives delineated). States could consider adoption of an objective assessment method, such as Florida and Illinois' assessment tool, to determine where the greatest opportunities are for performance improvement. These opportunities can then be promoted by the state to quality collaboratives, improvement networks and other improvement organizations, built into health plan requirements such as through mandatory Performance Improvement Project (PIP) target areas and added to state-based pay-for-performance incentives.

#### *Health Plans*

Health plans are obligated to measure and report on performance measures as required by their contractual requirements. If the federal government fulfills its role to maintain the Core Set, and state governments fulfill their role to contractually mandate these measures, then health plans will be obligated to monitor and report these measures. Health plans could provide these, and all required measures, in appropriate and timely ways to assist providers in using them for improvement. By supplying providers with current provider-level data, providers are able to use these data to gauge their performance compared to national standards as well as their local peers. Provider-level data is the most meaningful and credible to providers—by utilizing transparent and reliable methodologies for reporting, health plans can help providers buy in to the data and the improvement processes.

Health plans can reward providers who are providing high quality of care, shifting payment to encourage value-based purchasing based on performance data. Health plans can provide the needed resources to help providers achieve targets, including education, member outreach and support and care coordination services for complex patients. This level of support, along with incentives, can encourage providers to participate in quality improvement based on performance data.

#### *Providers*

Providers have a role in utilizing performance data. This includes the data that are supplied by health plans and the state, as well as their own internal data. Providers participating in the medical home demonstration projects were able to use data on small subsets of their population to better assess the care they were *actually* providing—which may or may not align with the care that they *think* they are providing or the care that patients and families are experiencing. Data was also used to guide implementation of small tests, which allowed providers to implement

incremental changes to their practices—with big long-term implications for quality improvement and practice transformation. Health plan and state-level data show another telling piece, particularly since these data would portray the results for the provider’s entire panel—not just those who show up for treatment. These “shadow panels”—patients that the payer attributes to the provider, but whom the provider may not actually see—are often a critical divergence between the payer’s and provider’s perspective of the quality of care delivered. Health plans providing transparent methodologies in regard to the populations included in the provider’s data (see above) is needed; and providers must likewise assume their role in recognizing these patients and buying in to the need to improve the care of *all* patients.

#### *Patients, Families and their Advocates*

Patients, families and their advocates have a role in demanding the visible reporting of performance data in ways that are accessible and applicable to their needs. Having providers and health plans that provide high quality health care only works in so far as patients are seeking care from these providers. Patients, families and their advocates can show that *quality matters* to them by selecting providers who provide better, higher quality care. To do this, they need clear and easily understood performance data, and they need to request, and utilize, these data.<sup>23</sup>

#### *Academic Medical Centers and Professional Organizations*

Academic medical centers and professional organizations can ensure that providers understand performance measurement, benchmarks and associated incentives and their impact on quality of care and their bottom line. Academic medical centers and professional organizations could provide quality improvement opportunities for providers to improve specific performance measures by adopting best practices and tracking and monitoring their individual performance.

***Focus: Invest in robust, certified EHRs that support management of preventive, acute, and chronic pediatric care; and support for pediatricians and pediatric subspecialists to utilize these functions to meet Meaningful Use requirements.***

#### ***The CHIPRA Grant Experience***

Providers participating in the pediatric medical home demonstrations in both states learned to tap into their electronic health records (EHRs) to improve practice work flows, assess progress toward transformation goals, and improve the quality of care for members. While most of the practices had met or were working to meet Meaningful Use requirements, they were at a loss as to how to use the EHR to perform basic medical home functions. EHRs, by and large, did not include the functionality that would enable the practices to truly use them to promote the medical home; the functionalities were available as part of a separate, cost-prohibitive module; the functionalities had to be custom-built separately by each practice at a prohibitive price (even if several practices

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<sup>23</sup> CMS Medicaid and CHIP Managed Care Proposed Rule CMS-2390-P, released 5/26/2015, includes a provision for states to adopt a health plan rating system to assist consumers in choosing a health plan based on quality ratings. Our recommendation aligns with this proposition—that patients and families should be provided with an utilize performance data in their healthcare decision making.

were requesting the same functionalities); and/or practices did not know how to or did not have the resources available to utilize these functionalities. The CHIPRA project demonstrated that EHR systems need the features that truly support pediatric providers in providing preventive, acute and chronic care to their patients, and practices have to have the knowledge base and resources available to utilize these functions. As a result, **we suggest investment in robust, certified EHRs that support management of preventive, acute, and chronic pediatric care; and support for pediatricians and pediatric subspecialists to utilize these functions to meet Meaningful Use requirements.** Various stakeholders can take responsibility for ensuring that EHRs are available to support improvements in pediatric health care.

### *Opportunities for Stakeholders*

#### *Federal government*

Federal certification of EHRs can require that basic EHR systems include medical home functionality. Vendors could be required to ensure that education and user-friendly guides are available to providers at the practice level that address medical home functionality, such as how to create a registry and use it for proactive care. Currently, technical guides are available to IT departments but there is little in the way of education and materials available to provider level users on medical home functionality. The federal government could partner with national medical home accreditation/recognition organizations to ensure that federally-certified EHRs meet the medical home requirements for each accrediting body and that documentation of EHR functionality for medical home recognition purposes is “deemed” if a practice has a federally-certified EHR.

Federal funds being used to assist providers in achieving Meaningful Use could also be used to assist practices in ensuring their EHRs can perform medical home functions and that providers are able to use the functionality.

#### *State government*

State-level Meaningful Use funds can be used to assist practices with medical home functionality related to EHRs. State contracts with Regional Extension Centers (RECs) could require this assistance.

#### *Health Plans*

Health plans can provide IT technical assistance and expertise to practices struggling with medical home functionality. Health plans can also provide educational opportunities on how to maximize medical home functionality.

While optimally providers should have the ability to perform medical home functions in-house, health plans could provide medical home functionality/information for network practices—particularly in the interim as practices acquire EHRs and become familiar with their medical home functionalities. For example, health plans could provide a pseudo registry function, by providing a list of health plan patients flagged or categorized by chronic conditions or patients in need of certain services to practices that do not have this capability.

### *Providers*

Providers could base EHR purchasing decisions, in part, on medical home functionality, including what is included in a basic package, what is already available for an extra fee, and what does not currently exist. Providers with the same EHR could form collaborations to engage EHR vendors and the federal and state governments to advocate for what they need. For example, if a group of providers determines that a particular screening form should be included in the EHR, they could meet as a group with the vendor and share in the expense of developing the form.

### *Academic Medical Centers and Professional Organizations*

Academic Medical Centers and professional organizations can include medical home functionality within EHRs in basic medical school curriculum. Professional organizations could offer education/training opportunities and technical assistance to practices struggling with using EHRs to perform medical home functions.

### *Patients, Families and their Advocates*

Patients and families can communicate their needs to providers. These include having electronic access to medical records, and functionality that supports evidence-based care and patient self-management. Patient and family advocates could be pushing vendors to include medical home functionality that supports patient education and self-management in all EHRs.

## **Principal Recommendation and Conclusion**

The many and diverse successes and lessons of the CHIPRA project promise to endure after the culmination of the grant—both in terms of the continuation of specific activities as well as through the key focus areas and way in which they can be supported that have been promulgated through this report. These will be the legacy of the Florida and Illinois CHIPRA Quality Demonstration Grant—a legacy that will hopefully have lasting, positive implications in these states as well as other states and environments that can replicate these models and learn from these lessons. Florida and Illinois believe that through stakeholders assuming their respective roles, as illuminated in the opportunities, the collective culture change to spread and sustain this work will result in significant improvement in child health outcomes. Change, at whatever level, is driven and sustained by tangible incentives, motivators and benefits. Each stakeholder has a role in providing those incentives, motivators and benefits to each other. It needs to be both top-down and bottom-up. Medicaid and CHIP—including federal, state, health plan, provider, and patient participants—could assume their roles, collectively, individually, and in collaboration with private payers and organizations, in creating and sustaining positive change. As such, our principal recommendation of the Florida-Illinois CHIPRA Quality Demonstration Grant is that **Medicaid and CHIP could optimize health for women and children by ensuring a high-quality health care system that utilizes standard, nationally-endorsed quality measurement; evidence-based quality improvement science at the provider, plan and state level; the meaningful use of robust, certified electronic health information technology; and public/private collaboration and alignment.**