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Patient-Centered Medical Home – Kids (PCMH-Kids): Creating a Statewide Pediatric Care Transformation Initiative

PATRICIA FLANAGAN, MD, FAAP
CAROL LEWIS, MD, FAAP
GUEST EDITORS

Children's health provides the foundation for lifelong physical and mental health, wellness, and prevention of chronic disease in adulthood. Building a strong foundation for the community's health is an investment. Because the consequences of poor health in childhood are most often only manifest in adulthood, it becomes easy to overlook the opportunities inherent in a strong primary care system for children.

Parents, grandparents and other caregivers play a critical role in fostering the health of their children. Likewise, the health of families raising children depends on community and state systems to be healthy – home visiting, child welfare, early intervention programs, preschools and schools, for example. Creating a program to help transform pediatric care to better address these needs and to function in an environment driven by value-based payment has been an exciting challenge.

This issue of the *Rhode Island Medical Journal* (RIMJ) chronicles the development and implementation of a statewide initiative, Patient-Centered Medical Homes for Kids (PCMH-Kids), which now impacts the health care of nearly 100,000, or half of the children living in Rhode Island.

CONTRIBUTIONS

In the first article, **DRS. PATRICIA FLANAGAN** and **ELIZABETH LANGE** describe the development of this statewide initiative and the experience and results of the aggregated practices in cohorts 1 and 2.

The second article by **PUTNEY PYLES, BSN**, and colleagues at Healthcentric Advisors provides an overview of the role of the pediatric practice coaches in facilitating transformation and reflects on the work they led in PCMH-Kids. Strong pediatric-focused facilitation was a critical element of successful transformation.

Article 3 by **DR. CAROL LEWIS** and colleagues describes the transformation of a large, low-income, pediatric teaching practice. The education setting provides both challenges

and opportunities, as does the complexity of a primary care clinic in a large urban hospital and a predominantly Medicaid-insured population. Integration of behavioral health (BH) into pediatric primary care was a key focus of PCMH-Kids. BH needs in children present as pre-clinical or subclinical findings, and presents emerging social-emotional challenges for children and parents. Embedding BH supports into each practice was transformational. Integrated Behavioral Health is described by **DR. ALLISON HEINLY, ELIZABETH BOGUS, LCSW**, et al in article 4.

Finally, article 5 is a conversation with **DR. JUDITH WESTRICK** and colleagues, providing a window into the PCMH-Kids experience in a private practice pediatric setting.

Acknowledgments

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We also acknowledge the support of the RI Chapter of the American Academy of Pediatrics, The Rhode Island Foundation, and The State Innovative Model (SIM) project. Many thanks also to The RI Care Transformation Collaborative, which took our fledgling program under their strong umbrella. We thank Debra Hurvitz, Dr. Pano Yecaris, Susanne Campbell and Carolyn Karner for their hard work.

Guest Editors

Patricia Flanagan, MD, FAAP, Professor and Vice Chair of Pediatrics, Alpert Medical School of Brown University; Chief of Clinical Affairs at Hasbro Children's Hospital.

Carol Lewis, MD, FAAP, Medical Director, Hasbro Children's Hospital Primary Care; Director, Refugee Health Program; Professor of Pediatrics, Clinician Educator, Alpert Medical School of Brown University

A Statewide Pediatric Care Transformation Journey

PATRICIA FLANAGAN, MD, FAAP; ELIZABETH LANGE, MD, FAAP

KEYWORDS: pediatric medical home, pediatric learning collaborative, pediatric quality-based payment

INTRODUCTION

United States (US) healthcare payment and delivery reform are rapidly changing the practice of primary care medicine. Population health, quality performance metrics and care coordination accountability can improve health (1) but adult models for care transformation do not fit the needs of children, families and pediatric practices. (2) We developed a process to create a pediatric-relevant care transformation project in Rhode Island. Patient-Centered Medical Homes for Kids (PCMH-Kids) is a multi-practice, multi-payer initiative through which practices share a common contract with all the payers. The contract supports transformation through technical support, collaborative learning and per-member, per-month payments to practices. Since 2015, the PCMH-Kids Initiative has involved a total of 20 pediatric practices in two enrollment cohorts, with one more expansion phase planned for 2019. These 20 pediatric practices include 120 providers and 85 pediatric residents, covering nearly 100,000 lives (about half the children in the state).

The vision of the PCMH-Kids Initiative and its many committed child- and family-focused stakeholders is that all the state's children and youth will grow up healthy and reach their optimal potential. The mission of PCMH-Kids was to engage providers, payers, patients, parents, purchasers and policy makers to develop high quality family and patient-centered medical homes for children and youth that will assure optimal health and development, be committed to quality measurement, accountable for costs and outcomes, focused on population health, and dedicated to data-driven system improvement.

BACKGROUND

Rhode Island is a leader in using multi-practice all-payer contracts for supporting care transformation. The Chronic Care Sustainability Initiative (now The Care Transformation Collaborative or CTC-RI) began in 2008 with five adult practices. (3) By 2015, CTC-RI included 73 adult practices. This adult model of transformation is driven by more effective

chronic disease management and fueled by cost savings from decreasing the need for higher levels of care. No pediatric practices were included in the CTC-RI model as the anticipated return on investment for pediatrics was small and children do not fit the adult chronic care medical models. After provider-led advocacy, PCMH-Kids was chartered in 2013 by the Office of the Health Insurance Commissioner (OHIC) and the Executive Office of Health and Human Services (EOHHS) to help pediatric practices garner support for transformation, family-centered care coordination, meaningful performance metrics and value-based payment. In 2015, the PCMH-Kids Initiative came under the auspices of CTC-RI. CTC-RI has provided logistical support, data aggregation and analysis, and convening and collaboration support through grants from the Rhode Island Foundation and the RI State Innovation Model (SIM).

PROCESS AND TIMELINE

Beginning in February 2013, a small steering committee laid the groundwork for the project. The PCMH-Kids stakeholder group gathered in September 2013 and met monthly until June 2015. Convened by RI Medicaid and the RI Office of the Health Insurance Commissioner, the stakeholders included pediatricians, family doctors, payers, child-serving community organizations, the Rhode Island Dept. of Health (RIDOH), the Rhode Island Dept. of Children, Youth and Families (RIDCYF), parent and patient voices and child health advocates from across the state. This richly talented and dedicated group developed PCMH-Kids Guiding Principles, Mission and Vision Statements as well as identified specific areas of need for ideal pediatric care – integrated pediatric behavioral health, pediatric care coordination that included social worker and family-focused support. From the stakeholder members, two committees were formed – the Quality Measures Committee and the Practice Selection committee. The Quality Measures Committee researched local and national standard practice and process measures, ultimately choosing measures for the PCMH-Kids Initiative based on statewide measure alignment and meaningfulness for child health improvement. Three measures were chosen: Healthy Weight and Activity Monitoring; Counseling, Developmental Screening, and Emergency Department Utilization. Additionally, family experience was tracked annually.

The Selection Committee created a pediatric practice-specific application, cultivated interested practices, reviewed applications and finally chose 9 pilot pediatric practices for the first PCMH-Kids cohort. By design, the pilot practices represented a diverse payer mix, with a specific focus on Medicaid-serving practices and a diversity of experience with National Committee for Quality Assurance (NCQA) recognition. Ultimately, the 9 pilot practices served 48,480 children (24.8% of RI's children), 48% of whom were insured by Medicaid. All 9 PCMH-Kids practices signed a 3-year common contract with our state's four commercial and two managed Medicaid insurers. In year one of the contract, practices received a per-member per-month payment to fund practice transformation (work flow changes, quality and data management) and care coordination (nurse, parent consultant or social worker.) In years two and three, a portion of the payment was withheld, to be earned by attaining benchmarked quality metrics. The PCMH-Kids pilot practice cohort started their three-year common contract program on January 1, 2016.

TRANSFORMATION

Each participating practice was paired with a transformation coach who assessed the practice and, with the office team, crafted a work plan to facilitate practice transformation. Plans included clarification of roles/job descriptions, team building, data capturing and reporting systems, behavioral health integration plans and care coordination needs and capabilities. All practices reported their quality metrics quarterly, uploading their data to a shared data repository. Additionally, all practices participated in collaborative learning, sharing best practices and lessons learned in quarterly meetings for care coordination, data reporting, integrated behavioral health and practice transformation.

CARE COORDINATION

One of the most exciting, innovative and rewarding aspects of the PCMH-Kids Initiative involved care coordination. Early in the program-design work of the stakeholders group, we had robust discussions about care coordination in pediatrics. The group felt strongly that the adult model of a nurse care manager who focused on specific disease entities such as hypertension or diabetes was not as helpful to pediatrics. We recognized that many of the care coordination needs were connecting with parenting supports, schools, with DCYF, and with mental health providers. While most practices used some of their care coordination resources to hire nurse care managers, most invested in social workers and family consultants to better match the needs of families. In addition, CEDARs (4), the state's intensive care coordination service for children receiving Medicaid, was a critical resource. We were able to embed these valuable

care coordinators in the practices. Each practice site implemented a care coordination team that best reflected their individual practice's needs.

HIGH-RISK LISTS

In the adult CTC model, insurers produce lists of patients who are (or are at risk for becoming) high-resources utilizers for which practice care coordinators are accountable. There was agreement among the stakeholders, including the insurers, that most high-risk algorithms did not accurately produce meaningful lists for child populations. The common contract included a commitment to work together to define meaningful high-risk identification for pediatrics. Together we developed a three-domain framework for determining which families would benefit most from intense care coordination. Each practice was able to tailor its parameters according to its patient needs and office resources. The first domain addresses high utilization of health resources. Most practices chose to include children who had two ER visits in 6 months or 1 hospitalization for behavioral health in 6 months. The second domain included poorly controlled or complex conditions – Attention Deficit Hyperactivity Disorder (ADHD) plus another complicating behavioral diagnosis such as anxiety, children with asthma who had required oral steroids in the last 6 months, for example. The third domain included children who are at risk based on social, family, or environmental factors, such as high lead levels, homelessness, or gaps in care. While interventions with patients who fit in this category do not immediately bend the insurance cost curve in the near term, investments in patients who are at risk for social reasons may produce the best cost savings in the longer term. (5) The three-domain PCMH-Kids high-risk screening framework has seen many iterations, piloted in a few diverse practices, informed by their experiences and insurer feedback. We continue to refine this work and it has been a collective effort with clinicians and insurers.

INTEGRATION OF BEHAVIORAL HEALTH

The stakeholders group felt strongly that a fundamental need for pediatric transformation included integrating behavioral health into primary care. Here again, the needs of children dictate a different approach to behavioral health integration (BHI). BHI for children requires including attention to mental health issues in parents and caregivers and also to the developmental emergence of social-emotional challenges in young children, school and learning issues and anxiety, depression, and substance use among adolescents. Because of this framework, many of the PCMH-Kids practices incorporated social workers in their care teams. Additionally, screening for social-emotional competencies and family challenges was an important component of the developmental screening that was a key quality metric

for practices (6). Along with these critical changes to practice-based resources and thanks to a separate dedicated insurer grant, PCMH-Kids has sponsored three year-long learning collaboratives, each dedicated to a pediatric-relevant behavioral health topic. Each learning collaborative starts with a half-day seminar that includes a content expert speaker, group discussion and facilitated group work to write aim statements and goals. In the ADHD collaborative, practices developed and implemented improved office protocols for treatment and management, wrote and implemented medication management contracts and one practice developed an ADHD packet, including documents to interface with the child's school, and resources for parents. Seven practices completed a second learning collaborative which addressed Postpartum Depression and Screening, representing 65 providers and 36,000 patients. This collaborative effected a statewide culture shift to the importance of screening for postpartum depression and referring for treatment; the screening is covered by all Rhode Island health insurers including Medicaid. Screening and referral rates improved from 28% to 77% among the participating practices. Sensitive to the opioid epidemic, eleven practices enrolled in this year's Screening Brief Intervention and Referral to Treatment (SBIRT) learning collaborative, representing 75 providers and 34,000 pediatric patients. To date, the practices are reporting on their baseline screening measure, sharing best practices of screening work flows, with special attention to the teen confidentiality that substance screening requires, and continuing motivational interviewing training via an online resource as well as Rhode Island content experts.

QUALITY METRICS RESULTS

Through shared learning and practice coaching the cohort 1 practices implemented work flows and data and analysis metrics that address the contracted measures. Supported by strong transformation coaching and support, all practices achieved NCQA 3 recognition within the first contract year. In year two, 100% of the cohort 1 practices met both quality metrics for developmental screening and growth monitoring and counseling and posted improvement over time. [Figures 1 and 2] Patient and family satisfaction was high at baseline and 67% of the practices met the improvement benchmarks for customer service measure for access, communication and office staff. PCMH-Kids practices successfully decreased

Figure 1. PCMH Kids BMI Screening Rates

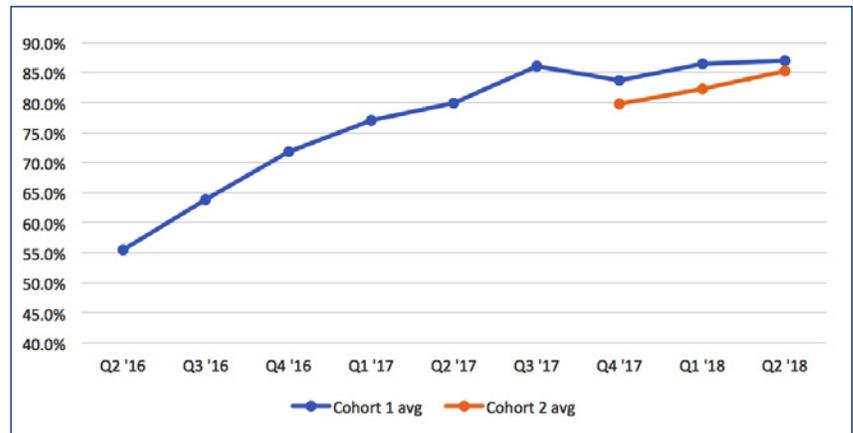
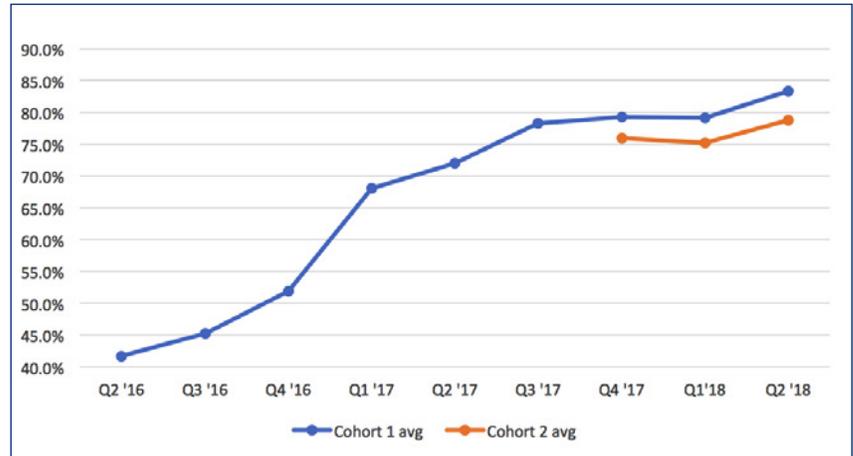


Figure 2. PCMH Kids Developmental Screening Rates



Emergency Department (ED) utilization and had a 2.5% reduction in ED usage compared to the peer group (rate for 1,000-member-months, excluding ERISA members).

EXPANSION

In 2017 PCMH-Kids had the opportunity to expand and 11 new practices joined as cohort 2, representing 45 providers and 28,000 attributed patients and we are planning another expansion in 2019. Given the quickly changing healthcare landscape, the second cohort contract is more individualized by practice based on their Accountable Care Organization (ACO) affiliation.

NEXT STEPS

The project has elevated a number of issues that we continue to grapple with, as so much of the adult-focused insurance infrastructure is not relevant to children and families. There is still work to be done on high-risk definition for children and integration of schools and other community resources.

This project has supported our notion that while nurse care managers still have a role in care coordination for children and families, a multidisciplinary team, including parent consultants and social workers, broadens the traditional care coordination to include the social and school determinants that can significantly affect a child's health and to integrate the behavioral needs of families and children.

Perhaps one of the most exciting results of our PCMH-Kids journey has been the successful creation of a pediatric learning community – a group of practices that now share a common language and a skillset that enables workflow analysis, rapid-cycle improvement, and data-driven change. As the healthcare landscape moves more towards systems of care and value-based payments, the challenge will be to keep the child and family voice at each of these tables to ensure that the financial resources remain available for this important work whose societal dividends and medical-cost savings are longer term than the traditional adult chronic care patient-centered medical care home.

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Authors

Patricia Flanagan, MD, FAAP, Professor of Pediatrics, Alpert Medical School of Brown University; Hasbro Children's Hospital, Providence, RI.

Elizabeth Lange, MD, FAAP, Clinical Associate Professor of Pediatrics, Alpert Medical School of Brown University; Waterman Pediatrics, East Providence, RI.

Correspondence

Patricia Flanagan, MD
Hasbro Children's Hospital
593 Eddy Street
Providence, RI 02903
PFlanagan@Lifespan.org

Helping Ambulatory Practices Succeed: Reflections from Practice Transformation Facilitators

PUTNEY PYLES, BSN, RN, PCMH CCE; KIMBERLY PELLAND, MPH; VICKI CROWNINGSHIELD, MPH, PCMH CCE;
BRENDA JENKINS, RN, PCMH CCE; LAUREN CAPIZZO, MBA, PCMH CCE

ABSTRACT

Healthcare reform efforts implemented to optimize primary and specialty care delivery require practices to undertake considerable transformation. To support change efforts, many private insurers and federal and state health-reform efforts provide practices and clinicians with access to practice-transformation facilitators. Healthcentric Advisors provides practice-transformation support and technical assistance to practices in Rhode Island and across New England. From this work we know that strategies and approaches to support transformation and achievement of program recognitions differ by practice characteristics, resource access, and patient panels. Understanding practice attitudes and beliefs about change, recognizing that change occurs on a spectrum, acknowledging that program recognition is only the beginning, and aligning quality-improvement initiatives, are domains that support success regardless of practice type. However, working with a facilitator who engages your entire care team to integrate a culture of quality improvement and process ownership, has the greatest impact on overall transformation.

KEYWORDS: patient-centered medical home, practice transformation, quality improvement, pediatrics, residency clinic, Rhode Island

INTRODUCTION: PRACTICE TRANSFORMATION

Healthcare reform efforts implemented to optimize primary and specialty-care delivery require practices to undertake considerable transformation. Challenges and barriers associated with practice transformation and the shift to models such as the Patient-Centered Medical Home (PCMH), a widely accepted solution to transforming the delivery of primary care,^{1,2,3} are well documented.^{4,5} To support practice change efforts, many private insurers and federal and state health reform efforts driving adaptation of the PCMH model or the shift to value-based care provide practices and clinicians with access to practice-transformation facilitators.⁶

Healthcentric Advisors provides practice-transformation support and technical assistance to primary care and specialty practices in Rhode Island and across New England, and has for more than 20 years. Our practice-transformation

facilitators include licensed clinicians, quality improvement specialists, master's prepared associates, and information technology and reporting experts. Facilitators work with practice implementation and care teams to provide technical assistance, training, and resources to support transformation efforts. Work begins by collecting baseline data from the entire care team to inform work with a smaller implementation team, allowing progress assessment. Our ultimate goal is to foster ownership of the transformation process among practices and care teams.

Strategies and approaches to support transformation and achievement of program recognitions, such as National Committee for Quality Assurance (NCQA) PCMH status, differ by practice characteristics, resource access, and patient panels. Although, through our experience working with practices across the readiness spectrum and across all practice types, we have identified key domains critical to practice transformation success. In sharing our insights and experiences with practices, care teams, and others looking to implement change, we describe four domains: understanding attitudes and beliefs about change, recognizing that change occurs on a spectrum, achieving NCQA PCMH Recognition (or other program achievements) is only the beginning, and aligning quality improvement initiatives to augment success. Each concept is followed by our team's approach and an example from our work with practices in Rhode Island.

UNDERSTAND THE ENTIRE CARE TEAM'S ATTITUDES AND BELIEFS ABOUT CHANGE

Assessing and understanding the entire care team's attitudes, beliefs, and behaviors at the outset of practice transformation is more important to success than evaluating only standard practice characteristics at baseline. Standard baseline characteristics (e.g. patient panel size, staffing and resource allocation, insurance/payer mix) are important considerations, yet culture change is driven by attitudes, beliefs, and behaviors.

Practice Facilitation Approach

We use the Holistic Approach to Transformational Change (HATCh[®]) model to support this approach (**Figure 1**). HATCh[®], designed by Healthcentric Advisors, is used by healthcare organizations to transform their settings and

Figure 1. HATCh® – Holistic Approach to Transformational Change



practices from institutional to individualized centers of care. The care, delivery systems, and supports originate and revolve around the patient.

When working with a practice, all care team members (not only the implementation team) are assessed prior to embarking on practice transformation, to evaluate their overall readiness for change. Assessment questions map to activities, workflows, and other areas for improvement that align with the highest standards of program recognition. The assessment provides us with a baseline of roles, tasks, attitudes, and more. For example, identifying the most common tasks across all care team roles allows us to recognize opportunity for delegation. Understanding care team members' attitudes about their role and confidence levels if roles evolve, supports the shift to practicing at the top of their license, certification, or education. Lastly, feelings on change provide a starting point for addressing concerns when beginning the transformation process.

Sample Outcome

Our team uses these assessment results to inform our approach to working with the care teams. In our work with a local practice, all care team members were asked prior to implementing change, how confident they are that the following positions (health care assistant, registered nurse, physicians or advance practice providers, and front desk staff) would be successful if their responsibilities were to become more aligned with their license, certification or education. Using a Likert scale to identify level of confidence (ranging from not confident at all to very confident) we observed a positive shift in confidence across all positions when reassessed after completion of work with the practice.

RECOGNIZE THAT CHANGE OCCURS ON A SPECTRUM

Our second concept is helping practices recognize that change is not a onetime event. The most successful practices allow for time and exposure to take transformation from concept to meaningful implementation. We involve care teams in the process, rather than completing work on their behalf; this collaboration over time limits burden, instills confidence, and promotes suitability.

Practice Facilitation Approach

We repeatedly expose practices to concepts and establish a realistic timeline that provides opportunity to process the deeper implications of change and how to reasonably initiate modifications to the workflows in their practice. Using proven quality improvement methodologies, our practice facilitators introduce a broad topic, allow for flexibility, and conduct small tests of change to reduce clinician burden. For example, following the framework of a Plan, Do, Study, Act (PDSA) cycle, data is used to identify areas for improvement (plan), to inform interventions or change (do), to assess and report out on the impact of an intervention or change effort (study), and to make adjustments as needs evolve (act). Using data-driven processes such as PDSA, practices can continually evaluate their own successes and failures, adapting methods to the changing priorities. Most importantly, we incorporate as many care team members as possible when moving a model or transformation effort from concept into workflow redesign, to promote buy-in and facilitate the culture shift over time.

Sample Outcome

Implementing pre-visit planning (huddles), is one strategy we share with practices. Often, the concept is met with resistance due to the upfront time commitment and competing priorities. For example, assessment responses from a practice revealed they were not participating as a team in consistent huddles. Our team responded by recommending implementing huddles using a PDSA process as an initial strategy to meet their needs. After implementation we found that: huddles took place 89% of the week and occurred 55% of the time during both morning and afternoon sessions. Among participants assessed, 84% agreed it was a more efficient session, 55% indicated patient care was enhanced, and 93% indicated the process improved team communications.

Our team continually stresses the different ways to implement and foster care team involvement, as opposed to dictating, allowing practices to drive the iterative process. Once implemented and refined to fit into unique workflows, the majority find it helpful in practice.

ACHIEVEMENT OF NCQA PCMH (OR OTHER PROGRAM): RECOGNITION IS ONLY THE BEGINNING

Practice transformation is not only about initial implementation of a new process or program recognition. Achieving recognition is the first step to transformation. Oversight and continued quality improvement is required to sustain and maintain new models of care and adapt as the environment continues to evolve. The quality improvement foundation of our practice facilitation approach emphasizes not only the results, but most importantly the process.

Practice Facilitation Approach

Introducing the concept of quality improvement into the implementation process provides a foundation for practices to incorporate change and to monitor results over time. Practices that build staffing roles and responsibilities to support practice transformation and quality improvement efforts (e.g. care coordination, prioritizing data, and reporting) have a greater likelihood of sustainability because someone is assigned to the monitoring and maintenance within their day-to-day tasks. We also encourage peer-to-peer sharing and often refer practices to others who are further along the transformation spectrum.

Sample Outcome

Hasbro Primary Care, a 75-doctor Pediatric Residency Program achieved NCQA PCMH recognition within 12 months. Their team maintains recognition and consistently achieves outcome targets by meeting regularly and forming quality improvement workgroups that are topic specific to their patient population. For example, workgroups implemented focus on emergency department utilization, behavioral health initiatives, and referral management. Workgroup teams emphasize quality improvement as their core approach, utilizing data to support their work. The various care team roles are represented on the workgroups, providing the opportunity for different perspectives to be shared to foster collaboration and ownership of the work across the practice.

ALIGN QUALITY IMPROVEMENT INITIATIVES TO AUGMENT SUCCESS

Practice transformation does not occur in isolation. As practices move through the transformation continuum, they are presented with more opportunities and expectations to demonstrate a cohesive quality improvement model. Aligning quality improvement initiatives, by integrating efforts such as PCMH and the transition to value-based payment systems, increases sustainability, streamlines practice priorities, and reduces burden.

Practice Facilitation Approach

Our team works with a practice to identify concurrent and future quality improvement initiatives and how they can be used to satisfy multiple program requirements. Practices can select quality improvement projects or measures that complement the overarching recognition requirements and align with their patient panel.

Sample Outcome

Facilitation teams work with practices to align quality improvement initiatives if possible and where appropriate. For example, NCQA recognition requires practices to administer a patient satisfaction survey. We often recommend identifying patient satisfaction measures in other programs so practices are able to implement a validated survey tool that meets multiple program or contract requirements. We then support practices in analyzing and using the survey results to make decisions on quality improvement projects.

CONCLUSION

Practice transformation is an iterative process that requires an organization-wide commitment to a quality improvement approach. We hope the described domains can support your practice's transformation efforts and achievement of success. Most importantly, work with an experienced facilitator who engages your entire care team to integrate a culture of quality improvement and process ownership.

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Authors

Putney Pyles, BA, BSN, RN, PCMH CCE, Senior Program Coordinator, Healthcentric Advisors, Providence, RI.

Kimberly Pelland, MPH, Senior Scientist, Healthcentric Advisors, Providence, RI.

Vicki Crowningshield, MPH, PCMH CCE, Senior Program Coordinator, Healthcentric Advisors, Providence, RI.

Brenda Jenkins, RN, D.Ay, CPEHR, PCMH CCE, CDOE, Senior Program Administrator / HIT Consultant, Healthcentric Advisors, Providence, RI.

Lauren Capizzo, MBA, PCMH CCE, Director, Practice Transformation, Healthcentric Advisors, Providence, RI.

Correspondence

Lauren Capizzo
 Director, Practice Transformation
 235 Promenade Street, Suite 500
 Providence, RI 02908
 401-528-3239
 Fax 401-528-3214
lcapizzo@healthcentricadvisors.org

Transformation: Patient-Centered Medical Home-Kids in a Predominantly Medicaid Teaching Site

CAROL LEWIS, MD, FAAP; ALISON RIESE, MD, MPH, FAAP; GAIL DAVIS, RN; CHANDAN LAKHIANI, MD, FAAP; ALLISON BRINDLE, MD, FAAP; PATRICIA FLANAGAN, MD, FAAP

KEYWORDS: PCMH, pediatrics, care coordination, high-risk

INTRODUCTION

Hasbro Children's Hospital (HCH) Pediatric Primary Care joined eight other practices in January 2016 to participate in Patient-Centered Medical Home-Kids (PCMH-Kids), a statewide multi-payer, multi-practice pediatric care transformation initiative.¹ Following a well-engaged stakeholder process that defined the unique needs of children in care transformation, nine practices signed common contracts with the state's four insurance plans. Each practice received a *per-member per-month* payment to help support the costs of care coordination and practice transformation. Practices were required to obtain level 3 NCQA recognition as medical homes within the first contract year and to submit quarterly quality metrics on rates of developmental screening, monitoring of Body Mass Index (BMI), counseling on nutrition and physical activity to a data-aggregator website. Emergency Department (ED) utilization and patient satisfaction scores were tracked. Years 2 and 3 of the contract withheld dollars that could be earned back by reaching quality benchmarks. Additionally, each year practices had the opportunity to join a topic-specific learning collaborative focused on integrated behavioral health. This is the final year of our 3-year contract and our experiences reflect both some shared issues with the other eight PCMH-Kids practices but also some unique challenges and strengths.

HCH is the largest practice of the participants, serving approximately 10,000 children and the largest proportion of low-income families. Approximately 90% of our patients are on Medicaid, 26% do not speak English or have limited English proficiency; average income falls approximately 25% below the federal poverty level and 22% of parents have not completed high school. This increases the complexity of services required to help our children grow up healthy.

Organizationally we are complex. The 12 full- and part-time faculty pediatricians are employed by Lifespan Physician Group; one social worker is employed by Rhode Island Hospital; 16 registered nurses and the eight medical assistants are in two different unions. Changes to clinic protocols and adjustments to duty expectations and schedules were particularly challenging.

We are the pediatric primary care training site for Alpert

Medical School of Brown University and the pediatric training site for 63 resident trainees and multiple medical students at various levels of training. Under the supervision of attending faculty, the residents function as primary care providers for their assigned panel of patients, yet are onsite only one half-day/week. Being a teaching site has benefits as well as challenges. An advantage of being a teaching site is that many residents choose to be involved with our multidisciplinary practice improvement teams and have QI training requirements. As primary care pediatricians and care-team members, we are dedicated to quality care of our patients and families and to share with residents the value and the joy of primary care. This is a strong motivator to create a high quality well-functioning pediatric medical home in which to teach.

An additional challenge, but also a source of opportunity for us, is that our institution moved its entire Electronic Health Record (EMR) platform only months prior to this initiative. This made it difficult to generate baseline data. However, the new platform includes shared records for inpatient, outpatient, emergency department, laboratory, imaging and many specialty visits.

We also recognize that we have unique strengths. We have long understood that social determinants influence the health of individuals and communities. Poverty contributes to higher risk of poor health. Barriers to health care that are the result of poverty, such as transportation, child care, health literacy, language, mental health, or chemical dependence act as profound obstacles to families with children.²⁻³ In the years prior to embarking on our PCMH journey, we were very deliberate in building clinic resources that address the nonmedical needs of our patients affecting their health. We have robust interpreter services. We have Connect-For-Health, a program that recruits, trains and supports undergraduate students to connect families with community resources such as food pantries, day care, summer camps as well as helping with applications for public benefits. We have an established medical-legal partnership that supports our ability to identify problems that could be remedied with legal action and to refer for assistance. We have the Reach Out and Read program to promote literacy. We have worked closely with CEDARs, the state Medicaid care coordination service. These services allow our trainees, staff and faculty to ask the hard questions about food security and housing stability as they feel they have onsite support for families.

NATIONAL COMMITTEE FOR QUALITY ASSURANCE (NCQA) RECOGNITION (4)

NCQA's PCMH Recognition Program is the most widely adopted PCMH evaluation program in the country. Required elements for recognition include demonstrating team-based care, population care management and accountability, patient access and engagement and the skills to do performance measurement and improvement.

We devoted most of our first year to meeting the requirements and documentation needed for NCQA recognition. The strong leadership team met weekly and was facilitated by a skilled practice coach who led the process and kept us on track as our timeline was short. The importance of technical assistance from our practice coach cannot be overstated. Nurse-run morning huddles were a breakthrough in understanding the transformation to team-based care. IT support was essential in helping us to develop an active patient registry and begin to run reports on our practice, an important step for moving to a population health frame.

We were able to achieve Level 3 recognition, the highest level possible. This built a strong foundation for the next 2 years and gave us opportunity to celebrate success, which increased understanding and participation by all levels of staff and learners.

During the NCQA process one of our biggest challenges was communication. We instituted multiple practices of intentional increased communication, including staff and division meetings, noon conferences for trainees, and weekly email messages of the week. Posting reminders and results in clinic spaces, creating informational brochures for families and patients also helped.

By year 2 we were ready to focus on quality metrics. We established quality improvement work groups that included trainees, staff, attending faculty, and others. QI groups included Developmental Screening, and BMI monitoring and counseling, ED utilization, and Patient Experience. This was an opportunity for everyone to learn rapid cycle improvement techniques and to understand the value of data and the excitement of improving our work. It also furthered our understanding and value of team-based care.

PCMH-KIDS MEASURES

Developmental Screening

The American Academy of Pediatrics Bright Futures Guidelines as well as Early, Periodic Screening, Diagnosis and Treatment (EPSDT) standards for children enrolled in Medicaid promote developmental screening at 9-, 18-, and 30-month wellness visits utilizing an evidence-based screening tool. Survey of Wellbeing of Young Children (SWYC)⁵ was chosen as the standardized tool due to its availability in English and in Spanish, its age-specific surveys, its relative ease of completion, as well as its inclusion of brief questions regarding environmental and social stressors. Screens are administered at time of visit utilizing an online system that delivers and scores the screen.

Our results of improved and sustained screening. (Figure 1)

Hurdles include language, literacy skills of parents, workflow, volume of screens, time necessary for completion, and inconsistent connectivity in our workspace. Our families are less likely to have access to computers and servers at home to complete prior to the visit. Communication with over 75 trainees and faculty to communicate changes in work flow slow the process. Incorporating other team members as leaders, such as medical assistants, has been central to facilitate the process.

Figure 1. Developmental Screening

Yearly developmental screening rates of patients at Hasbro Children's Hospital Primary Care ages 9 months to 36 months.



Body Mass Index (BMI) monitoring and Nutrition and Physical Activity Counseling

Obtaining accurate height and weight on all children provided BMI data that was monitored. Our work group created an EMR well-visit template which provides a prompt and guidance to physician trainees as to appropriate nutrition and activity counseling during wellness visits and research projects. (Figure 2)

Figure 2. BMI Age 2-17

Percent rate of yearly BMI monitoring, nutrition and activity counseling for children ages 2 through 17 years at Hasbro Children's Hospital Primary Care.



Emergency Department Utilization

Reduction in ED utilization has been a key focus for HCH Primary Care's practice improvement initiatives. A quality improvement work group including faculty, nurses, support staff and trainees examined 1-week snapshots of our patients' ED utilization and found almost half of visits did not meet level of emergency care, with 30–40% of these occurring during clinic hours, as well as very low utilization of our after-hours phone call services. We have focused on addressing these findings. Nurses contact all families who have visited the ED in the preceding day to provide support, offer follow-up appointments, evaluate why ED care was sought and remind families that we have an after-hours MD/RN advice line as well as access to same day sick visits. We have developed signage, brochures, and a waiting room video with the message: "Call us first!" We partner with the Hasbro ED to convey the consistent message to our families that we are available if their child is ill or injured and are developing a protocol for bi-directional transfer of care between the two settings.

Care Coordination and High-Risk Registry

One of the most exciting aspects of PCMH-Kids was the opportunity to work with other practices and payers to identify families who could benefit most from intensive care-coordinated services. After a practice- and payer-engaged process that included reviewing high-risk algorithms used nationally and processes used locally and piloting several tools, we developed our own PCMH-Kids framework for identifying high-risk children. PCMH practices chose different criteria from 3 domains: high cost or utilization, poorly controlled or complex conditions, and at-risk based on gap in care or environmental concerns. HCH Primary Care elected the following criteria from the stated domains: 1) 2 emergency room visits in 6 months 2) Children with asthma on oral steroid in the last 6 months 3) Infants 9 months-of age with less than 3 Prevnar immunizations or 2-year-olds without documented DTaP #4.

This provides us with a registry that is of manageable size (roughly 5% of our practice) and with maximum potential for impact on the health of the child with more focused care coordination.

Our high-risk framework has also identified asthma as a common condition and an area of focus for process and quality improvement.

Asthma

Poorly controlled asthma causes significant morbidity and mortality and imposes a tremendous burden on families and society.⁶ It presents greater disease burden in low social economic groups.⁷ We developed a registry of higher-risk asthma patients based on prescription medication, ER utilization, and hospitalization data. Improving management of this group requires communication, coordination, patient/

family education, and team-based care. We administer the validated Asthma Control Test (ACT) during clinic visits to assess their child's current level of asthma control to guide clinicians in developing an evidence-based asthma action plan. Families are central in the development of the plan. The ACT is a teaching tool for our residents and its use reinforces national standards to guide the deliverance of quality asthma care. Residents are active in the asthma quality improvement process in our clinic, which encourages ownership of both the patients and the processes that govern our daily operations.

INTEGRATED BEHAVIORAL HEALTH (IBH)

Among the foundational principles identified in our original stakeholder's meetings was the imperative of integrating behavioral health into primary care. Because we were able to have social workers be part of our care coordination team, we greatly expanded our ability to address behavioral health issues that arise daily in our practice. Also, through the improvement in screening toddlers and young children for social-emotional challenges, we are able to intervene with families before there is a mental health diagnosis. Screening efforts are effective because we have the expertise of our social worker to further evaluate and, when necessary, help provide a warm hand-off to community referrals.

CONCLUSION

The unique needs of our families, including the social determinants that accompany poverty, and our responsibility as the primary teaching site for future pediatricians, presents challenges. However, these factors also provide us with great incentives: to assure optimal health and development for our high-risk population and provide trainees with solid training in patient-centered, team-based care, quality measurement, accountability for costs and outcomes, a focus on population health and dedication to data-driven system improvement.

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Authors

Carol Lewis, MD, FAAP, Medical Director, Hasbro Children's Hospital Pediatric Primary Care; Professor of Pediatrics, Alpert Medical School of Brown University, Providence, RI.

Alison Riese, MD, MPH, FAAP, Hasbro Children's Hospital (HCH) Pediatric Primary Care, Providence, RI.

Gail Davis, RN, Hasbro Children's Hospital (HCH) Pediatric Primary Care, Providence, RI.

Chandan Lakhiani, MD, FAAP, Hasbro Children's Hospital (HCH) Pediatric Primary Care, Providence, RI.

Allison Brindle, MD, FAAP, Hasbro Children's Hospital (HCH) Pediatric Primary Care, Providence, RI.

Patricia Flanagan, MD, FAAP, Professor and Vice Chair of Pediatrics, Alpert Medical School of Brown University and Chief of Clinical Affairs at Hasbro Children's Hospital, Providence, RI.

Correspondence

Carol Lewis, MD
 Hasbro Children's Hospital
 593 Eddy Street
 Providence RI 02903
CLewis2@Lifespan.org
Carol_Lewis@Brown.edu

Pediatric Primary Care and Integrated Behavioral Health

ALLISON HEINLY, MD, FAAP; ELIZABETH BOGUS, LCSW; NATALIA GOLOVA, MD, FAAP; JENNIFER FRIEDMAN, MD, PhD, FAAP; ALCINA NICKSON, RN; CAROL LEWIS, MD, FAAP

KEYWORDS: Integrated Behavioral Health, pediatrics, ADHD, post-partum depression, substance use

INTRODUCTION

Pediatric primary care has been undergoing a significant transformation into the patient-centered medical home (PCMH) model of healthcare delivery. This transformation presents an opportunity to integrate services that help optimize children's health. Chief among these is the integration of behavioral health.

Approximately 18% of adults and 13–20% of children are reported to have a mental health disorder.^{1,2} This leads to adverse health behaviors, contributing to an increase in chronic medical conditions.³ Many of these behaviors are established in childhood, emphasizing the importance of addressing mental health needs early.⁴ Identification of behavioral problems early, prior to the development of more severe mental disease, is a preventive strategy utilized in pediatrics. Children and adolescents are seen regularly for routine exams, providing opportunity for the primary care provider to address both medical and behavioral health concerns.⁵ Emerging research suggests that integration of mental and behavioral health into pediatric primary care settings improves outcomes.^{3,4} Understanding differences between adult and pediatric behavioral health care has been important, with a primary difference being one of prevention as opposed to a focus on diagnosis. Younger children, in particular, may have social-emotional challenges that do not rise to the level of diagnosable mental illness. Emphasis is placed on recognition of the patient within the context of family, school and community. Strengthening and supporting patient and family engagement, improving communication and coordination among the primary care medical home, patient, family, schools, mental health and addiction disorder providers has been emphasized.

Pediatricians are often the first professionals to recognize behavioral or mental health problems in children. However, given time constraints in the primary care office and pediatricians' lack of mental health training, they often feel unable to effectively intervene or adequately diagnose and treat identified patients.⁶ As part of moving to team-based care in pediatric medical homes, many primary care offices

now incorporate behavioral health professionals into their practices. At Hasbro Children's Hospital (HCH) Pediatric Primary Care, a licensed Clinical Social Worker (CSW) collaborates with the pediatric providers to provide behavioral and mental health support. Often this is when the provider or screening tool has identified a behavioral health concern. The CSW meets to assess the child and family to identify needs, provide brief interventions or, when needed, refer for appropriate treatment. The goal is to identify mental and behavioral concerns early, provide support for the patient and family, identify strengths and promote a healthy trajectory.

A series of Integrated Behavioral Health (IBH) Learning Collaboratives were undertaken as part of PCMH-Kids, a statewide multi-payer multi-practice pediatric care transformation initiative. The collaboratives supported the integration of behavioral health into the pediatric primary care setting. Topics included improving attention-deficit hyperactivity disorder (ADHD) care, improving screening and referral for post-partum depression screening, and screening and referral for adolescent substance use. Each collaborative engaged 7–11 practices (pediatric and family medicine) and lasted 12 months. Each was structured with an initial half-day learning session which included didactic learning and team-based creation of practice-specific aims' statements. This was followed with each practice working with a facilitator and content experts to achieve their aims through a series of improvement cycles. Practices shared their learning and data at quarterly progress meetings. Each collaborative wrapped up with a final half-day report, with storyboards and robust discussion of lessons learned. Below, we describe our experience with the IBH Learning Collaboratives at HCH Pediatric Primary Care, a large hospital-based teaching site serving about 10,000 children, 90% of whom receive Medicaid.

ATTENTION-DEFICIT/HYPERACTIVITY DISORDER-YEAR ONE

ADHD is one of the most common behavioral health disorders in children, occurring in about 8% of children ages 12–17 years.⁷ It is often associated with one or more comorbidities including learning disabilities, conduct disorder, anxiety, depression, and speech problems.⁷ The American Academy of Pediatrics (AAP) Clinical Practice Guidelines

offers clear recommendations for diagnosis, evaluation and treatment of ADHD.⁸ Most pediatricians are familiar with these guidelines; however, only about half report routine follow-up visits 3-4 times a year for children with ADHD who are taking medications.⁹

At HCH Primary Care, we sought to increase adherence to the 2–3 month recommended follow-up visits. Three barriers were identified: patient and parental lack of knowledge regarding prescribing and using controlled substances, limited access to appointments, and impaired communication with the school, resulting in delays in diagnosing, treating and managing patients with ADHD. To address these barriers, an “ADHD Care Plan Agreement” packet was created. The packet was provided to all families diagnosed with ADHD who were currently on or starting medication. The Care Plan Agreement outlines the prescription of controlled substances and required follow-up care and is signed by the patient and family. Also included in the packet is a release of information for the school, appointment and treatment log, Vanderbilt Follow-Up Parent/Teacher Scales, a template letter to request an IEP, school medication authorization forms, a list of RI resources for families of children with ADHD and a tip sheet for handling daily problems at home. Additionally, all patients with ADHD requiring follow-up appointments were notified. Increased access to appointments was made available, particularly Saturday mornings. Encounter templates were updated to improve documentation and data collection and to provide an educational tool for trainees. Following these interventions, scheduled follow-up visits within 2–3 months increased from 60 to 92%. Additionally, communication with schools has improved and parental feedback has been extremely positive.

POST-PARTUM DEPRESSION SCREENING

The AAP mental health task force recommends that pediatricians identify mothers suffering from PPD in the perinatal period, using a standardized screening tool at 1-, 2-, 4- and 6-month well-child visits.¹⁰ Although there has been an increase in screening rates over the past 10 years, pediatricians are still only screening mothers less than 50% of the time.¹¹ Given the high prevalence of PPD, 15% in the general population and as high as 20% in low socioeconomic status populations, screening mothers systematically for PPD and connecting them to services is needed.^{12,13} Additionally, there is a robust body of literature confirming that maternal depression negatively affects infant growth and development. Early identification and treatment are critical to ensure optimal development.¹⁴ Pediatricians are in a unique position to identify mothers suffering from PPD and alter the course of their disease, as well as improve their child's physical and emotional wellbeing.

At HCH Primary Care, we implemented routine screening utilizing the Edinburgh Postpartum Depression Scale – an

easy, short, well-validated tool. The screen is self-administered and results are available to the providers who review the results, discuss them with the mother and refer to services if needed. Through chart review, we found that we were initially screening only 55% of mothers at least twice during the first 6 months postpartum. With the support of the IBH Learning Collaborative, we implemented a series of changes in our workflow, training all of our providers on the importance of screening for PPD and utilizing an online system that delivers and scores the screen. By the end of the first year, screening rates increased to 82%. Additionally, we found that approximately 20% of mothers we serve suffer from PPD. Of these, about a third require mental health support, either through in-office social work consultation or a referral to outpatient or partial day program behavioral health services.

ADOLESCENT SUBSTANCE USE

According to the Monitoring the Future Study National Survey Results in 2017, 62% of high school seniors and 23% of 8th graders have consumed alcohol.¹⁵ Marijuana use continues to rise, with 37% of seniors reporting use within the past year.¹⁵ Substance use disorders often co-occur with mental illness in both adults and adolescents.¹ Drug and alcohol usage in adolescents is particularly concerning due to the lack of development of the adolescent brain.¹⁶ For these reasons, it is imperative to talk with adolescents about the use and misuse of drugs and alcohol.

The current learning collaborative has chosen to use the Screening, Brief Intervention, and Referral to Treatment (SBIRT) model to address substance use. SBIRT is an evidence-based practice beginning with universal screening to identify users, the brief negotiated interview which uses motivational interviewing to discuss substance use and misuse, followed by referral for individuals with substance use disorders. At HCH Primary Care, we instituted screening for all adolescents (ages 12–18 years) at well child visits using the CRAFFT, a short, validated screening tool. The CRAFFT is given to teens on a confidential electronic tablet as part of the “check-in” process, allowing the provider to view results before entering the room. Chart review in June 2018 showed a screening rate of 50% for adolescent well child visits. To increase screening rates, we focused on provider awareness. With increased provider education and prioritizing the CRAFFT, we were able to increase screening rates to 70% by September 2018. With increased momentum, we are working towards training all providers in SBIRT, particularly motivational interviewing. Thus far, we have held 2 hour-long conferences to capture faculty and residents, in addition to offering on-line training modules. As an integral part of our team, our CSW provides intervention and follow-up of positive screens as needed. While we have only had a small number of positive screens (1–4%), our group has found the

impact of negative screens to be extremely important. The negative screens serve to open the door to an interactive discussion about drugs and alcohol, allowing for both the child to ask questions and for the physician to positively reinforce the patient's motivations for abstaining. Moving forward, we hope to continue to increase our rates of screening and by year-end, have all providers trained in SBIRT.

The work with the IBH learning collaborative provided impetus to expand other behavioral and mental health initiatives. In 2017 we initiated universal depression screening for all 12- to 18- year-olds at well visits. We utilize confidential on-line screening at time of visit using the PHQ9-Modified for Adolescents Tool. Within 6 months, 86.9% of adolescents were screened at the time of a well visit with 20% screening positive for depression, thoughts of suicide, or history of suicide attempt. All patients with positive screens had further evaluation.

Our future goals include expansion of behavioral health care for the many identified mothers, children, and adolescents within primary care. Ideally, patients who screen positive would benefit from assessments for safety, together with brief interventions and referral for ongoing care within the medical home. We have had great success with this through the support of a licensed CSW embedded in our clinic. The mental health burden, however, remains high and calls for expansion of these services. Other innovative approaches we are piloting to address this need include having psychiatry residents in our clinic. Senior residents trained in psychiatry, pediatrics and child psychiatry spend time each week in primary care to provide support in diagnosis and brief interventions. This model has the added benefit of educating our pediatric residents with resident peers supported by a child psychiatry attending. With continued effort to increase access to CSW and child psychiatry providers, in addition to the IBH Collaborative support in evidence-based improvement initiatives, we hope to strengthen and expand the integration of behavioral health into our primary care office to provide optimal and comprehensive care for our patients and their families.

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Authors

Allison Heinly, MD, FAAP, Hasbro Children's Hospital (HCH) Pediatric Primary Care, Providence, RI.

Elizabeth Bogus, LCSW, Hasbro Children's Hospital (HCH) Pediatric Primary Care, Providence, RI.

Natalia Golova, MD, FAAP, Hasbro Children's Hospital (HCH) Pediatric Primary Care, Providence, RI.

Jennifer Friedman, MD, PhD, FAAP, Hasbro Children's Hospital (HCH) Pediatric Primary Care, Providence, RI.

Alcina Nickson, RN, Hasbro Children's Hospital (HCH) Pediatric Primary Care, Providence, RI.

Carol Lewis, MD, FAAP, Hasbro Children's Hospital (HCH) Pediatric Primary Care, Providence, RI.

Correspondence

Allison Heinly, MD
allison_heinly@brown.edu

Patient-Centered Medical Home-Kids (PCMH-Kids): A Conversation with Anchor Pediatrics

JUDITH B. WESTRICK, MD

In the following Q&A, pediatrician **JUDITH B. WESTRICK, MD**, a member of Anchor Pediatrics, a group of six pediatricians, one of whom is also a pediatric cardiologist, and four nurse practitioners, describes the group's experiences with PCMH-Kids.

The Lincoln, RI, practice is part of the multispecialty Anchor Medical Associates, which grew from the former Harvard Pilgrim staff model HMO beginning in the year 2000. It is associated with two groups of internists in Providence and Lincoln and a medicine and pediatrics group in Warwick.

1. Why did your group decide to join PCMH-Kids?

Anchor Pediatrics was a National Committee for Quality Assurance (NCQA)-recognized medical home prior to joining the initiative. We joined PCMH-Kids to implement quality improvement (QI) methods to improve patient and family-centered care. In addition, the financial support that we received has enabled us to finance and hire staff to facilitate the QI efforts within our practice.

2. What were the biggest challenges and successes?

The biggest challenge was implementing developmental screening. Most of the other practices participating in PCMH-Kids began using Survey of Wellbeing of Young Children (SWYC) available through Chadis.com and their online questionnaires for the purpose of screening the development of young patients during their well childcare visits. This did not work in our office.

We tried to use tablets provided by PCMH-Kids for children's caregivers to use to complete surveys with little success. They never seemed to be able to complete the surveys properly or promptly. Frequently, passwords were forgotten, toddlers tried to take the tablets away from caregivers to play with them, and young children's need for supervision all impeded timely completion of surveys. Only rarely did caregivers complete the surveys before our visits, and even then the caregiver commonly completed the wrong survey for the child's age.

Working with our QI team, we tried using a different, paper-based validated screen. We now consider developmental screening as a big success of the project since we have switched to the Parents' Evaluation of Developmental Status (PEDS) and continued doing the Modified Checklist for

Autism in Toddlers (MCHAT) screens. The caregivers of our patients have been much more successful and efficient at completing paper survey screening tools. The two screens complement each other as the MCHAT asks very specific questions and the PEDS screen asks open-ended questions. The answers to the MCHAT are useful for screening for developmental disorders such as autism and that facilitates our developmental evaluation enormously. The PEDS is useful both for the straightforward answers, e.g., "I am concerned my child is not able to talk as well as he/she should" and also encourages and asks for other concerns from caregivers, e.g., "I am concerned about how my child will react when he/she learns Daddy is moving out" or "I am concerned we will need assistance to pay our rent or electric bill". Certainly, both kinds of responses are extremely helpful when trying to understand how a particular patient and family are doing.

3. How has your practice changed?

Through the PCMH-Kids project we have implemented multiple screenings in our office. This process is largely accomplished by the medical assistant (MA), who presents the questionnaire to the patient or caregiver and then enters the results into our EMR. In so doing, the MAs in our office have been asked to assume much more clinical responsibility and they have done so with attentiveness and compassion for our patients. They are responsible for finding ways to give teens and infant caregivers privacy to complete the CRAFFT substance use screen and the EPDS postpartum depression screen. Since this transition, the MAs in the office are more likely to comment on changes they notice in patient or family attitudes. The help of our MAs was consistent before PCMH-Kids, but as their clinical roles have changed, the MAs are even more involved and helpful.

Also, the availability of a nurse case manager (NCM) in the office has been extremely helpful. Having a clinically trained person who is not busy seeing patients but available to follow up on and guide families of patients with special needs is invaluable. The NCM in our office can check in with families of medically fragile patients and ensure they understand and are able to accomplish and access needed care for their children. She has become the point person for families to communicate with when trouble arises, and who ensures families have the follow-ups, supplies, and support they need.

4. What did you learn from other practices?

It has been extremely helpful to meet as a PCMH-Kids group to discuss how to implement the changes required of our practices. While we all agreed from the start that teens need privacy to complete substance use screenings in an accurate and helpful way, in practice this can be a serious challenge. Initially, our office wanted to screen all teens for substance use. After one of these sessions, we realized that we were more likely to be successful if we started with a smaller group. We chose 16–18 year-olds and developed a specific protocol for them.

Alternatively, when we started screening caregivers for postpartum depression, we realized that we wanted to screen all caregivers, not just biological mothers. Discussion within the group was enormously helpful in deciding how to proceed. We were particularly concerned to include all caregivers, as the incidence of depression is high in many caregivers – including fathers, adoptive and foster parents.

The sessions where we discussed how each office had implemented strategies for accomplishing these tasks were very helpful in the implementation of the project.

5. Has your office used integrated behavioral health and how has that been?

Behavioral health for pediatric patients in Rhode Island remains a very serious challenge. Despite the increased number of pediatric psychiatric beds in Rhode Island, they are almost always full. There is significant overflow of children with psychiatric diagnoses almost all the time to the medical beds at Hasbro Children's Hospital.

At the same time, it is getting harder and harder to find behavioral healthcare for pediatric patients who do not require inpatient level of care. Waitlists are often long and even when a suitable provider of behavioral healthcare can be found, the out-of-pocket costs for families can be prohibitive. In this situation, most pediatricians, including those of us at Anchor Pediatrics, are providing more mental health care to our patients.

Pedi-prn is a program that provides us with a way to speak with a child psychiatrist at a scheduled time later in the day. While this has been very helpful for crisis or co-management of conditions, we still lack the access to counseling resources, in-person psychiatry resources and family supports that our families need.

At Anchor, we have not yet been able to incorporate a behavioral health provider directly into our practice, although we feel this would be of great benefit to our patients. We have tried some other strategies with only modest success. We did come to an agreement with a behavioral health group located about a block from our office, which was very convenient for all. When we mentioned the various types of patients we wanted to refer they agreed wholeheartedly. Shortly thereafter they closed the office near us and moved. With less availability the wait times have increased and our

patients are having some difficulty getting to their other offices which are farther away.

For short time, we had the help of a CEDARR (Comprehensive Evaluation Diagnosis Referral and Reevaluation) worker from Rhode Island Parent Information Network (RIPIN) in our office. While not a clinician, she was very helpful in locating behavioral health resources for patients and families. She was able to help patients and families connect with services more quickly and even arranged transportation when possible. As of this writing, RIPIN has a seasoned CEDARR worker who is scheduled to start in our office soon. In addition, Bradley Hospital has announced a training program for pediatric providers interested in learning more about providing more mental health services to our patients. At present they allow one provider per practice to be trained; two of our providers have asked to be included.

We plan to try to network with the practices in PCMH-Kids who have integrated behavioral health and learn how they are financing their behavioral health support.