

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

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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

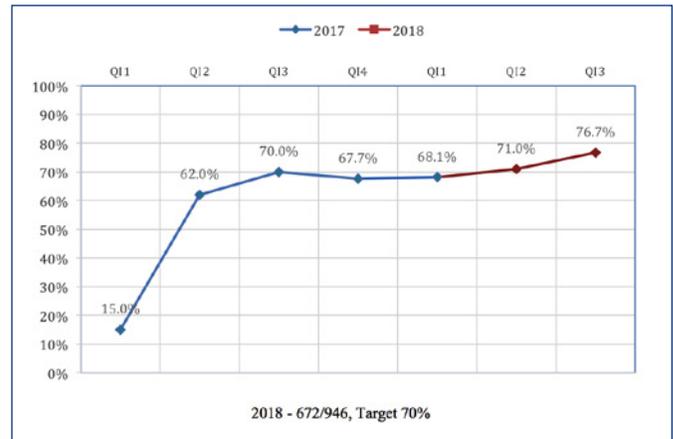
The American Academy of Pediatrics Bright Futures Guidelines as well as Early, Periodic Screening, Diagnosis and Treatment (EPSDT) standards for children enrolled in Medicaid promote developmental screening at 9-, 18-, and 30-month wellness visits utilizing an evidence-based screening tool. Survey of 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.

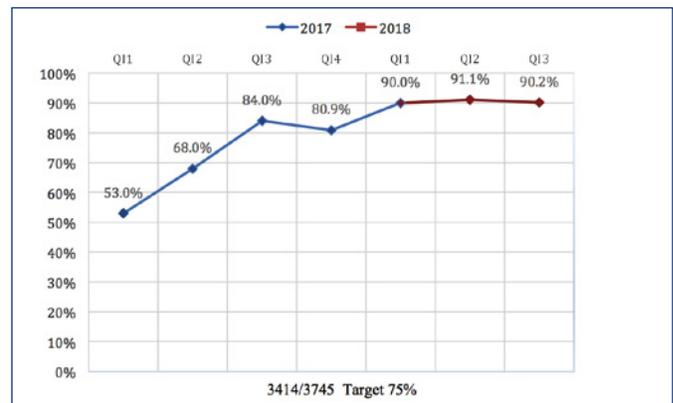


Body Mass Index (BMI) monitoring and Nutrition and Physical Activity Counseling

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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