Proceedings of the BEACON Quality of Care Measurement Conference

February 8th, 2011

Prepared by the Staff of the Ohio Colleges of Medicine, Government Resource Center
Lorin Ranbom, Dushka Crane Ross, Shannon Ginther, Allison Lorenz,
Barry Jamieson, Tim Sahr

Ohio Colleges of Medicine
Government Resource Center
www.grc.osu.edu

Executive Summary

To further its mission of advancing health outcomes for children though partnerships and improvement science and to fully align with Governor Kasich's Office of Health Transformation's quality improvement strategies, the public/private partnership known as the BEACON (Best Evidence for Advancing Childhealth in Ohio NOW) Council hosted the Quality of Care Measurement Conference on February 8, 2011.

The event's 85 attendees spent the day learning about Ohio's health care system performance and focusing on sustainable strategies to improve child health quality while reducing costs. The Governor's Office of Health Transformation presented Ohio's planned pursuit of quality improvement strategies to improve care delivery while reducing Ohio's Medicaid costs, while other leading health care experts highlighted specific programmatic and cost reduction opportunities applicable to Ohio's Medicaid program.

The participants were challenged to identify priority areas that would achieve the goal of cost care reduction while either maintaining or improving quality. The morning breakout session resulted in the identification of five quality improvement focus areas, including: prenatal and neonatal care; care coordination; access to quality behavioral health care; patient safety; and targeting specific populations with chronic conditions (e.g. asthma). For the afternoon sessions, conference participants were assigned to one of these five groups and asked to articulate the problem, identify target aims, key drivers, potential interventions and desired outcomes. In addition, attendees recommended specific initiatives and pilot projects taking place in Ohio or other states that could be considered as possible initiatives in the next biennium.

Moving forward, these identified strategies will assist the BEACON Council in its efforts to integrate Ohio-specific child health quality improvement strategies with federal and state efforts to improve health care quality and reduce costs. As a next step, the strategies were summarized and provided to the Office of Health Transformation for future consideration. These identified strategies will serve as an important evaluation tool for the Council as it examines its efforts and successes in improving child health and health care in Ohio.

Table of Contents

Executive Summary.....1

Introduction.....3

BEACON Council Background.....4

Conference Proceedings.....5

Breakout Sessions.....12

List of Appendices.....16

Introduction

This report entitled **"Proceedings of the BEACON Quality of Care Measurement Conference"** was conceived as a strategy for the BEACON (Best Evidence for Advancing Childhealth in Ohio NOW) Council to focus on prioritizing its future work. During its first year in existence, the BEACON Council engaged in a process of developing an organizational structure and funding strategy to implement its mission (Advancing Health Outcomes through Partnerships and Improvement Science), and established a strong public/private partnership to support projects targeted towards important health issues. The Council successfully established a collaborative partnership to create an infrastructure for quality improvement science amongst the leaders of Ohio's children's health improvement projects.

As the BEACON Council closed in on its first anniversary, it became clear that to maintain momentum the Council needed to align its priorities with federal requirements for the Medicaid program to measure its progress relative to the CHIPRA quality measures and with the goals of Governor Kasich's Office of Health Transformation. To achieve this, the BEACON Council planned the February 8, 2011 BEACON Quality of Care Measurement Conference.

Conference goals included the:

- Creation of a common understanding of the performance of Ohio's health care system for children relative to the nation and other states;
- Identification and prioritization of quality improvement topics that best meet the 'Triple Aims' (Berwick, Institute for Health Care Improvement)
    - Improve the health of the population
    - Enhance the patient experience of care (quality, access and reliability);
    - Reduce, or at least control, the per capita cost of care;
- Reconciliation of the existing quality improvement projects with these priorities; and
- Adoption of three S.M.A.R.T. goals (specific, measurable, attainable, realistic, and timely) to achieve the 'Triple Aims' and save money for Ohio in the next two years.

The conference's 85 participants included consumer advocates, physicians, representatives of children's hospitals, quality improvement professionals, other health care practitioners, representatives of private sector health plans, and leadership and staff from state government and health services agencies, including the Ohio Departments of Job and Family Services, Health, and Mental Health.

The following report outlines the steps leading up to the conference, explains the rationale for focusing on quality of care measurement, and captures the outcomes from the work of the participants.

BEACON Council Background

The BEACON Council is an evolving statewide public/private partnership that encourages and supports initiatives achieving measurable improvements in children's and adolescent's healthcare and outcomes through improvement science and a quality improvement infrastructure. The BEACON Council Mission is to improve the quality of care leading to improved health outcomes of care and reduced cost, with a special emphasis on Medicaid-eligible children, youth and their families. Improving quality outcomes and reducing costs requires the establishment of a sustainable quality improvement infrastructure and strong public/private partnerships to support projects targeted to important health issues. Ohio's quality improvement wtructure began when the Ohio Department of Job and Family Services Office of Ohio Health Plans (OHP), Ohio's Medicaid program, joined with the Ohio Department of Health (ODH) and other public and private partners to form the BEACON Council. The BEACON Council is governed by an Executive Committee. The Council is also comprised of four Infrastructure Committees: 1) the Quality Measurement Committee; 2) the Health Information Technology and Data Committee; 3) the Quality Improvement Capacity Committee; and 4) the Community Advisory Committee.

Under the authority of the Council of Medical Deans, the Ohio Colleges of Medicine Government Resource Center (GRC) enables the operational implementation and financing of the quality improvement infrastructure to encourage health improvement initiatives. The GRC, on behalf of state agencies, contracts with children's and youth health experts from the public and private sectors in the state to lead the improvement initiatives with quality improvement experts. The OHP and ODH Division of Family and Community Health Services (DFCHS) will work jointly with the BEACON Council and the GRC to design and direct healthcare quality improvement initiatives for Ohio's Medicaid covered children, youth and their families.

OHP, ODH, Ohio Department of Mental Health (ODMH) and other BEACON public and private organizations may invest financial resources and in-kind services to build and sustain a quality improvement infrastructure. This infrastructure will support the development and implementation of child health improvement projects. At the request of OHP, state agencies may identify revenue (e.g., general revenue funds or fees) to support child health quality improvement projects that would qualify for federal Medicaid matching funds. Similarly, at OHP's request, private sector organizations may identify revenue to support child health quality improvement projects that would qualify for federal Medicaid match.

Currently, the projects affiliated with the BEACON Council include the:

1. Concerned About Development Initiative;
2. Ohio Children's Hospitals Solutions for Patient Safety (SPS);
3. Ohio Perinatal Quality Collaborative (OPQC);
4. Pediatric Psychiatric Network (PPN); and
5. Childhood Obesity Initiatives.

Greg Moody, Governor's Office of Health Transformation

The conference began with a keynote presentation by Greg Moody, Director of Governor Kasich's Office of Health Transformation. Mr. Moody addressed Governor Kasich's challenge of submitting a balanced biennial budget. He highlighted that without changes, the Medicaid programs faces a 49% increase in state spending in 2012 over 2011. He also indicated Governor Kasich's preference to implement strategies to modernize the fragmented Ohio Medicaid system to improve the quality of health services available to consumers and families and provide the best value to taxpayers.

Mr. Moody cited a recent article entitled 'The Hot Spotters' by Atul Gawande, which suggests that lower medical costs can be achieved by giving the neediest and most expensive patients better care. Mr. Moody stated that 5% of the Medicaid population consumes almost 50% of the Medicaid funding, and that instead of lowering payment rates across the board, Ohio should first seek to improve care and lower costs for these high cost patients.

Mr. Moody identified three basic strategies for achieving better health, better care, and costs savings through improvement. They included:

- Rebalancing long-term care;
- Integrating behavioral and physical health care; and
- Improving care coordination.

He identified several federal health care reform options that Ohio should act upon, including:

- Health homes for patients with chronic health conditions;
- Accountable Care Organizations; and
- Financing integration for Dual Eligibles.

Mr. Moody challenged conference participants to submit ideas to the Office of Health Transformation to help accomplish these strategies.

Leona Cuttler, M.D., Center for Child Health and Policy, Rainbow Babies and Children's Hopsital

Leona Cuttler, M.D., Director of the Center for Child Health and Policy, Rainbow Babies and Children's Hospital at Case Western Reserve University, highlighted a New England Journal of Medicine (2007) article entitled "The Quality of Ambulatory Care Delivered to Children in the United States" (Mangione-Smith, et.al.). She specifically addressed the deficits identified in the quality of care for children. She acknowledged that delivery of health care is an art and a science, but also reiterated the need for evidence based methods to measure quality of care for the following purposes:

- To assess a population's health;
- To identify specific strengths and gaps;
- To develop informed improvement targets;
- To assess different health systems/providers; and
- To assess cost-effectiveness and value.

Dr. Cuttler then provided an overview of the child quality measures environment in Ohio, including comparisons of Ohio's ranking in child health quality measures among the states, from the Commonwealth

Fund's "State Scorecard on Child Health Performance, 2011." Overall, Ohio ranked in the second quartile (19th) among the states, in the second quartile (14th) for access and affordability, in the top quartile (8th) for prevention and treatment, but in the third quartile (36th) on the potential to lead healthy lives.

How does Ohio rank? **The COMMONWEALTH FUND** State Scorecard on Child Health Performance	**Percent**	**Ohio Rank**
I. ACCESS AND AFFORDABILITY		**14**
% of children uninsured	92.50%	18
% of parents uninsured	88.00%	12
% of insured children with adequate insurance for needs	78.00%	20
Avg total premium for EBI as % of median household income	17.40%	19
II. PREVENTION AND TREATMENT		**8**
% children with medical home	66.20%	5
% of 19-35 mo receiving all vaccines	74.80%	25
% of 0-17y with ≥1 preventive visit/yr	89.70%	18
% of 1-17y with preventive dental visit	78.70%	29
% needing & receiving mental health Rx	66.20%	20
% 1-5y with std. development screen	20.80%	16
Asthma hospital admissions (/100,000)	128.7	20
% CSHCN with no problems re referrals	86.20%	5
% CSHCN whose families rec. support	69.30%	36
III. POTENTIAL TO LEAD HEALTHY LIVES		**36**
Infant mortality (deaths/1,000 LB)	7.80%	38
Child mortality (deaths/100,000 0-14 y)	18%	15
% 4 mo-5 yr at mod/high risk of developmental or behavioral delays	22.90%	17
% of 10-17 yo overweight or obese	33.30%	37
% of 1-17 yo with oral problems	27.40%	35
% HS students now smoking cigarettes	NA	
% HS students not meeting PA recommendations	NA	
IV. EQUITY		**27**
(ranked based on gaps between the most vulnerable group and US national average for selected indicators)		

Dr. Cuttler identified the key organizations at the federal and state levels that are participating in the development and implementation of child health quality measures. Specifically, she highlighted CHIPRA's requirement that the U.S. Department of Health and Human Services develop a Pediatric Quality Measures Program, and that each of the state's Medicaid programs report annually on each of the measures. While Ohio will be able to report on many of these measures, to make improvements, Dr. Cuttler suggested that Ohio should select a small number of measures (3 to 5) and really focus on quality improvement strategies to make substantial progress in areas that will meet the triple aims.

Key Participants in Development and Implementation of Child Health Quality Measures	
CHIPRA (Children's Health Insurance Program Reauthorization Act of 2009)	Provides for HHS to develop a Pediatric Quality Measures Program (PQMP): (a) an initial core set of performance measures, (b) a program to refine and expand initial core set, (c) state submission of annual reports, (d) an IOM study, etc, etc
Centers for Medicare & Medicaid Services (CMS):	Responsible for much of CHIPRA implementation
Institute of Medicine (IOM):	Conducting an ad hoc study to "provide guidance to Congress on the extent and quality of efforts to measure child health status and the quality of health care for children"
Agency for Healthcare Research and Quality (AHRQ):	MOU with CMS to lead in implementing PQMP • Developed **initial CHIPRA core set of 24 child health quality measures** based on validity, feasibility, and importance… an important current focus • Overseeing further studies to refine and expand
Medicare and Medicaid EHR Incentive Programs	Providing financial incentive for the adoption and "**meaningful use"** of certified **EHR** technology to achieve health and efficiency goals – Health Information Technology for Economic and Clinical Health (HITECH) Act of 2009
ODJFS Methods for Covered Families and Children (CFC): Ohio Medicaid Managed Care	Encounter Data Quality Measures (**Ohio MMC**) **CHECK: monitors managed care plans' encounter data**
National Committee for Quality Assurance (NCQA)	Provided several PQMP measures and developed HEDIS (Healthcare Effectiveness Data and Information Set), performance measures used in managed care
National Quality Forum (NQF)	Formed to "develop and implement a national strategy for health care quality measurement and reporting"; develops and assesses use of performance measures (e.g. Serious Reportable Events)

Dr. Cuttler reviewed the specific existing children's quality measures, identifying specific CHIPRA, Medicaid Electronic Health Record meaningful use, and Ohio Medicaid Managed Care measures. She noted that BEACON has anticipated and is already addressing several core quality measures, and suggested that these measures dovetail nicely with the Office of Health Transformation's strategies to save money by improving care. Specifically, she highlighted the following measures:

- **Health Home**
  - Pediatric/Psychiatry Network
  - System of Care for Kids/ Mental Health & Kids At Risk for Out of Home Care
- **Innovation & Cost Effectiveness**
  - Ohio Perinatal Quality Collaborative
  - Solutions for Patient Safety Initiatives
  - Maximizing enrollment of eligible children and maintaining stability of coverage
- **Prevention**
  - Concerned about Development & Autism Screening
  - Help Me Grow Home Visiting, and. Maternal Depression Screening
  - Managed Care Well Child Screening Initiative
  - Childhood Obesity
  - Early Childhood Mental Health

Dr. Cuttler concluded by stating that child health improvements require strengthening the quality of health care delivered, providing needed services, and ensuring value. She suggested that Ohio currently has both strengths and gaps in child health quality and indicated that BEACON has a track record of identifying and improving critical child health issues. She specifically highlighted Ohio's poor ranking in measures related to prenatal/perinatal care prior to the implementation of the Ohio Perinatal Quality Collaborative. She suggested that Ohio needs to continue to make progress in that area and focus more heavily on chronic condition management for children, rather than access to primary care and prevention.

Lorin Ranbom, Ohio Colleges of Medicine Government Resource Center

Lorin Ranbom, Director of the Ohio Colleges of Medicine Government Resource Center, provided an overview of the Medicaid Electronic Health Record (EHR) Incentive Program. He explained that the EHR Incentive program, which begins accepting applications this summer, will assist eligible Medicaid providers (professionals and hospitals) with the purchase and installation of EHR systems that meet the national 'meaningful use' standard. The concept of 'meaningful use' assumes that these systems will increase patient safety and improve quality and transparency of health care. The final Centers for Medicare and Medicaid Services regulations require hospitals and eligible professionals to meet 15 "core" measures of meaningful use and several among 10 "Menu Set" measures in the second year of EHR adoption. Mr. Ranbom explained that the meaningful use measures included the following four reporting measures for children that are also required in the initial stage of CHIPRA measures: body mass index, pharyngitis, immunizations, and chlamydia screening.

Mr. Ranbom suggested that an examination of EHR adoption rates in Ohio would provide insight into likely gains related to children's health quality improvement science. Specifically, he suggested that children's health quality improvement efforts would benefit from physicians entering structured data related to care delivery in an electronic format that can be aggregated and compared.

In closing, he summarized an ODJFS 2010 survey of Medicaid-eligible professionals and EHR status. Survey results indicated that the percent of pediatricians who installed or purchased an EHR by 2010 was 45.4%. Another 44.7% planned to install an EHR, while 9.9% had no plans to install an EHR. Mr. Ranbom suggested that while there is good reason to believe that there will be a high rate of adoption in Ohio, the transition will provide challenges to quality improvement efforts.

Maureen Corcoran, Ohio Department of Job and Family Services

Maureen Corcoran, former Assistant Deputy Director, Ohio Department of Job and Family Services, provided an overview of Medicaid enrollment and expenditures for children, identifying the major delivery systems, eligibility categories (see table below), and cost drivers. The purpose was to provide a basis for conference attendees to consider the impact of the selection of quality improvement measures and strategies that would impact Medicaid expenditures.

Ms. Corcoran identified fee-for-service disabled children not on waivers or in a nursing or ICF/MR facility as being the group of children that could be most affected by strategies to coordinate and improve care. She explained that this population was likely to be included in a biennial budget initiative including Medicaid managed care plans, health homes, and/or pediatric accountable care organizations. She suggested that regardless of the strategy pursued in the biennial budget, the conference attendees should consider system and individual provider responsibilities related to quality improvement.

Ohio Medicaid Children < 21yo SFY10

	# Undup Children	Total Cost Care-All Services	Net Payment Per Child
Children in Managed Care	1,247,225	$2,350,623,979	$1,885
FFS ABD Children (non-waiver/NF/ICFMR)[1]	48,459	$313,315,030	$6,466
FFS Waiver Children	6937	$316,229,894	$45,586
Children in Care & Foster Care Age Out	35,947	$123,507,093	$3,436

[1] 26.4% of these children received behavioral health services

Ms. Corcoran also highlighted emergency department visits as a quality improvement and savings opportunity. According to Ms. Corcoran's summary of Kaiser State Health Facts, Ohio's overall emergency department utilization rate (adults and children) has been consistently higher than the nation over a nine year period (1999-2007). For the 10 most frequent categories of emergency department visits (adults and children) in FY 2008, the majority of visits (62% to 96% by diagnosis) were either non-emergent, primary care provider treatable, or preventable.

Ms. Corcoran indicated that the Ohio Medicaid quality improvement project 'IMPROVE' (Implementing Medicaid Programs for the Reduction of Avoidable Visits to the Emergency Department) has created a collaborative strategy between ODJFS, community leaders, hospitals, health care providers, managed care plans, and consumer and family advocates to reduce non-emergent visits. Additionally, the Ohio Academy of Pediatrics is implementing a project with quality improvement experts and physician practice experts in pediatric asthma from Cincinnati Children's Hospital Medical Center to reduce emergency department visits for asthma.

Avoidable hospital admissions were also highlighted as a quality improvement and savings opportunity (see next page). Defined by the Agency for Health Research and Quality as 'ambulatory care sensitive,' these visits are essentially avoidable if appropriate prior treatment in a primary care setting had occurred. Providing specific examples, Ms. Corcoran noted that asthma admissions are avoidable if providers improve their diagnosis and treatment of asthma by following the American Academy of Pediatrics Guidelines for the Diagnosis and Treatment of Asthma. She also noted that the Ohio Perinatal Quality Collaborative (OPQC) is making great strides by using quality improvement science to reduce low birth-weight rates through collaboration with Ohio's maternity hospitals and obstetricians to reduce the number of near-term births.

Avoidable Hospital Admissions for Children

Avoidable admissions are those conditions on admission claims that generally would not have resulted in inpatient admission if appropriate prior treatment had occurred.

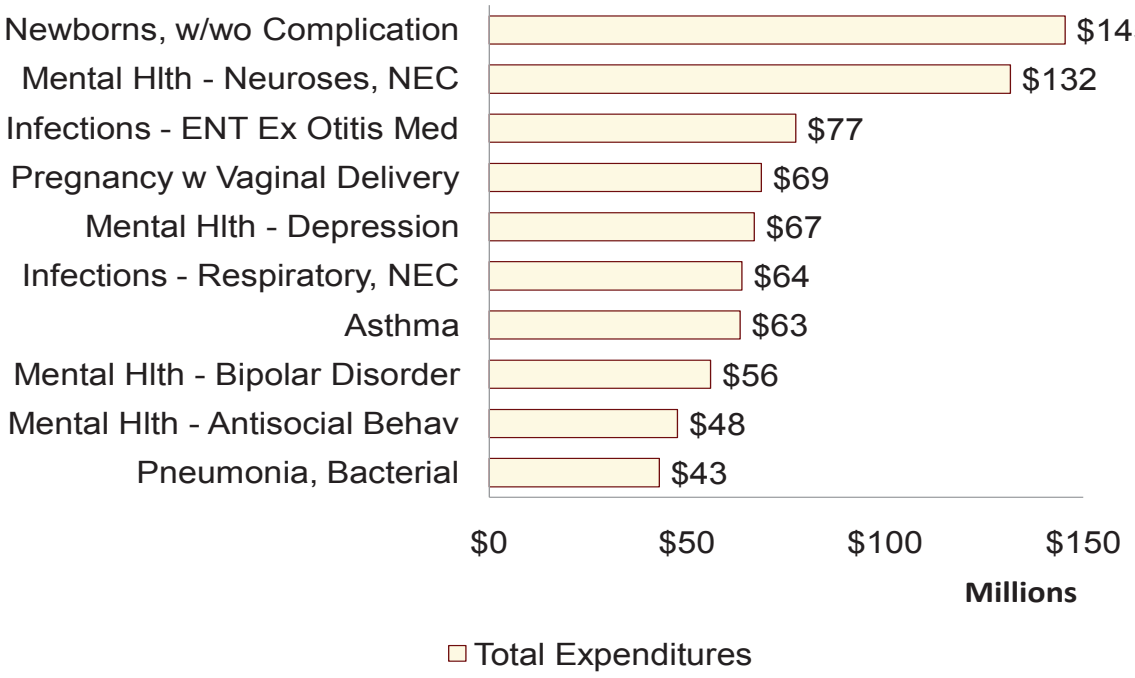
Measurement	Admits	SFY 2009 Cost	Cost Per Admit
Asthma[1]	1,404	$7,639,922	$5,441
Perforated Appendix[2]	318	$2,517,296	$7,916
Urinary Tract Infection[3]	759	$4,270,681	$5,626
Low Birth Weight[4]	7,446	$156,110,544	$20,965

[1] Principal diagnosis code of asthma and no secondary diagnosis cost of cystic fibrosis or respiratory anomaly, for patient aged 2 years and older.
[2] Diagnosis code of perforated or abscessed appendix, for patients aged 1 year and older.
[3] Principal diagnosis code of urinary tract infection (UTI), for patients over the age of 90 days.
[4] Diagnosis code of low birth weight, for neonates less than 2 months of age. Admissions for newborns with a missing age are included.

Source: Ohio Department of Job and Family Services SFY 2009 Ohio Medicaid Data Set.

Ms. Corcoran highlighted other opportunities for quality improvement and savings by sharing information on the 35 highest-volume episodes of care for the fee-for service and Medicaid managed care delivery systems. Amongst the top ten are episodes for newborn care, mental health conditions and asthma. Amongst the top 35 are $357 million for a variety of mental health episodes, including neuroses, depression, bipolar disorder, antisocial behavior, substance abuse, and psychosis. This included $76 million for pharmacy costs (pre-rebate figures).

Ten Highest Cost Episodes of Care for Children, SFY 10



Ms. Corcoran challenged the conference attendees to consider the data in the break-out sessions to prioritize measures and quality improvement opportunities. She suggested that health care cost and quality strategies for Ohio's children could be improved. She also suggested that the quality improvement work of the BEACON public/private partnership shows promise for improving quality and reducing cost. She closed by encouraging the Ohio Departments of Health, Mental Health, and Job and Family Services, in conjunction with the Office of Health Transformation, to work with the BEACON Council to identify specific targets and initiatives to improve quality and reduce cost.

Breakout Sessions

In the morning, BEACON Quality of Care Measurement Conference participants broke up into six groups to answer a series of questions related to descreasing cost of care while either improving or maintaining health care quality. As a result of this breakout session, their conversation led to a commonality among five overarching issues which were discussed in the afternoon breakout session discussed below.

Meeting participants were assigned to small groups for the afternoon breakout sessions. Each group included state agency and trade association representatives, providers, practitioners, and consumer/family advocates. Each group was assigned a facilitator, a scribe, and at least one member who could respond to questions about the Medicaid data analyses presented during the morning session.

Through facilitated discussion, each group was asked to identify and prioritize areas where quality improvement efforts should be directed to reduce cost while improving or maintaining the quality of care. Participants were then asked to identify specific interventions to achieve the aims associated with each focus area and rank each area with regard to both the level of difficulty and the potential impact on cost and quality. Finally, each group was asked to describe challenges that would need to be addressed to successfully implement the identified quality improvement interventions.

Several broad areas of focus for quality improvement were predominant across the six groups. These included: (1) improvements focusing on prenatal and neonatal care; (2) efforts to increase coordination of care; (3) efforts to improve access to behavioral health care and quality; (4) efforts focusing on patient safety; and (5) efforts focused on specific chronic conditions and populations, such as children with asthma.

Prenatal care and neonatal care were identified as critical "hot spots," where significant opportunities for cost containment and quality improvement exist. Improvement suggestions centered on efforts to reduce pre-term births and low birth weight babies. Specific interventions included: (1) expedited Medicaid enrollment for pregnant women and their babies, so that pregnant women could receive appropriate care management; (2) continued dissemination of the Ohio Perinatal Quality Collaborative's (OPQC) team-based approach for iterative implementation and testing of best practices; (3) use of the newly approved 17p progesterone treatment for high risk mothers; and (4) investigation and implementation of best practices utilized by states ranked higher than Ohio on Commonwealth rankings related to low birth weight. These interventions were ranked relatively low in terms of their level of difficulty, but high with regard to potential impact. Challenges included the implementation of an expedited enrollment process and engaging providers in all counties to voluntarily participate in OPQC.

A second improvement focus identified by almost every group was increased coordination of care, particularly for children with the most complex and costly chronic conditions, such as asthma, to support appropriate treatment and reduce avoidable hospital admissions/readmissions. To this end, groups identified the need to expand and integrate the medical home model, adopt payment reforms, utilize selective contracting, and develop other incentives. Groups also identified the need to develop an electronic health record infrastructure to support care coordination, including access to real-time data to help providers identify patients whose care does not meet care standards (e.g, children with asthma who do not have an inhaler). Finally, the groups identified the need for public reporting and benchmarking of standard quality measures to support quality improvement and increase accountability and transparency. Several identified challenges inherent in care coordination efforts included: (1) the need for additional funding to support system transformation; (2) cost savings related to this approach may not be realized immediately; and (3) implementation requires payment reform to support care coordination.

Behavioral Health was the third most frequently identified focus for quality improvement and cost savings.

Groups examined data indicating that five of the seven most expensive treatment populations were children with behavioral health conditions. Several potential opportunities for improvement were discussed. Among these were pharmacy management efforts to reduce inappropriate medication utilization, and polypharmacy in particular, through education of primary care providers and reconsideration of earlier efforts to implement prior authorization. Early behavioral health screening and coordination were cited as strategies to prevent children from becoming disabled and entering Aged, Blind and Disabled (ABD) Medicaid eligibility status.

The Pediatric Psychiatric Network (PPN) sponsored by the ODMH in partnership with Ohio's children's hospitals was identified as a potential resource to improve access to psychiatric services and provide support and education to pediatricians and other primary care providers regarding appropriate psychiatric treatment for children. For children at high risk for out-of-home placement, the group identified an evidence-based program called Intensive Home Based Treatment as a vehicle to reduce hospitalizations, residential treatment, and entry into the juvenile justice system. Children traditionally treated within hospitals, residential treatment centers, or youth services facilities are instead provided with intensive therapy at home that engages family and school in their treatment. Though the potential for impact was seen as high, efforts to improve quality and reduce cost related to behavioral health care were seen as more challenging than other quality improvement approaches. These challenges were attributed to a lack of access to providers with expertise, the need for payment reforms to provide reimbursement for consultation services such as PPN, and the lack of integration in Ohio's behavioral health and primary care service systems.

Several groups identified a need for improvement efforts aimed at specific populations. For instance, children with asthma were identified as a population for whom there are significant opportunities for cost savings and quality improvement through implementation of standardized treatment and care management. Children in foster care were identified as a group for whom lack of access to health records often resulted in redundant and inappropriate service utilization. Transitional-age youth were identified as a group for whom streamlined eligibility, a needed strategy to reduce gaps in coverage. Finally, participants suggested that additional work is needed to understand the cost drivers and opportunities to improve care to the 6,937 children receiving waiver services.

Quality improvement efforts directed at improving patient safety were identified by several groups. Participants cited the high costs associated with each avoidable incident and identified approaches implemented through Ohio's Solutions for Patient Safety initiative as a promising approach. The success of this approach requires continued partnership between health care providers, policy makers, and businesses.

Finally, one group identified the need to implement efforts aimed at changing the behavior of service recipients. These included efforts to incent appropriate use of primary care providers, rather than emergency departments.

During the afternoon, breakout groups were asked to consider five of the specific areas of focus identified during the morning session: (1) prenatal care; (2) care coordination; (3) children's mental health pharmacy, (4) asthma; and (5) patient safety. For each of these areas, participants were asked to articulate the problem, and identify target aims, key drivers, potential interventions, and desired outcomes. Finally, each group recommended specific initiatives and pilot projects taking place in Ohio or other states that could be brought to scale in Ohio in the next biennium. When possible, groups were asked to provide specific projections of potential savings and improvement targets associated with each proposal. The information and recommendations from this session are summarized in the following Breakout Table:

QI Focus and Target Aim	Key Drivers	Interventions	Measures	Recommendations
Group 1: Perinatal Care. Target aim: Reduce premature births. Based current data, a 1% reduction in pre-term births would translate to $150 million reduction in Medicaid expenditures.	- Maternal risk factors (e.g., smoking, obesity, substance use) - Previous preterm births - Adequate access to care - Pregnancy spacing - Uncertain gestational age - Early induction/c-section - Infertility treatment	- Newly approved 17P (a form of progesterone treatment); - Continued work of OPQC to reduce elective preterm delivery in weeks 36 through 38; - Family planning services to promote spacing; - Use of antenatal steroids to treat premature infants; - Presumptive eligibility/ expedited enrollment of pregnant women; - Smoking cessation programming for all pregnant women - Home visitation for prevention and early intervention	- Rate of premature birth - Birth weight - Gestational age - Proportion of eligible women who receive 17P - Home visitation - Continued collection of OPQC performance measure data	- OPQC implementation (target: reduce NICU admissions by 500 in 1 year) - Provider education and monitoring of 17P utilization (target: reach 1,500 women/3,000 eligible women in 1 year) - Implement expedited /presumptive eligibility (target, fully implement in 2 years) - Smoking cessation: 5As at all clinics for pregnant women (target, fully implement in 2 years) - Family Planning offered to women who are not pregnant (target: fully implement in 2 years)
Group 2: Care Coordination. Target aim: (1) Develop a system of coordinated care that addresses the unique, intense needs of children with complex conditions. (2) ABD/FFS children with complex special needs will have an executable care plan by June 30, 2013	- Children with chronic health conditions - Mental health conditions - Perinatal health conditions - Children in foster care, no medical record, unnecessary duplication of services	- Health home model and access to expertise for children with intense, unique needs - EHR to support care coordination - Expedited enrollment to reduce coverage gaps	- ED visits - Avoidable hospitalizations - Patient hospital stay (days) - Pharmacy - Continuous coverage - Medical home implementation - HEDIS and behavioral health measures	- Pilot children's medical home over 9 months in 2 to 4 children's hospitals - Scale to 30% of children's hospitals in 2 years.
Group 3: Psychopharamacology Target aim: (1) Decrease psychoactive medication costs for children with mental illness by 20% by 6/30/12, while maintaining appropriate treatment. (2) Increase access to appropriate mental health care for children and consultation for primary care providers	- Lack of access to acute urgent care - System of care not designed to meet needs of patients with chronic conditions - Uninformed, high risk, high cost providers - PCP willingness to provide psychiatric care - Family education and involvement - Lack of formulary review and agency policy regarding appropriate utilization of medications - Lack of data systems and resources for utilization review	- Provide access to psychiatric consultation, and assessment to support PCPs - Implement utilization management - Identify and target high risk providers and patients - Academic programs and trade associations promote pediatric psychiatry training - CME requirements in psychiatry for PCPs - Medication formulary with consulting psychiatrist for prior authorization - Medication algorithms - Therapy alternatives to pharmacotherapy - Community linkage, discharge planning	- Pharmacy cost - ED utilization for mental health conditions - Inpatient hospitalization - Suicide - Number of patients receiving more than one antipsychotic medication - Degree of preferred drug list utilization - Ohio Family Health Survey access to care measures	- Pediatric Psychiatry Network (PPN) - United Health Care project to provide on-call family doctors - Academic programs and trade associations promote pediatric psychiatry; - CMEs on psychiatric care for primary care providers

Group 4: Asthma Target aim: Expand American Academy of Pediatrics Asthma Initiative to reach 50% of pediatric providers by 2012 Provide collaborative sharing. Require public, private, and policy transparency. Promote stakeholder alignment	Not identified	- Put all 7 Ohio-based Medicaid plans on the same data collection system to identify asthma patients and monitor trends - Collect comprehensive pharmacy data, including fill trends, with a feedback loop to providers - All inclusive EMR - clearinghouse that could capture current data from existing systems. - Integrated QI tools	Not identified	Expand American Academy of Pediatrics Asthma Initiative
Group 5. Patient Safety Target aim: Eliminate serious harm across the 8 Ohio Children's Hospitals. Reduce the number of Serious Harm events by 50% by 12/31/15. Reduce the 12 month rolling average rate of Serious Safety Events (SSEs) by 50% by 12/31/12, & 75% by 12/31/15	Total cost of critical harm events > $20mill per year.	- Adopt statewide partnership to promote organizational change and implement quality improvement methods around serious safety events	Critical harm event data across the 8 Ohio Children's Hospitals (e.g., surgical site infections, adverse drug events)	Implement Solutions for Patient Safety.

Conclusion

The BEACON conference provided participants with a day-long opportunity to learn about the performance of Ohio's health care system for children and the ongoing child health quality improvement activities in the state. Participants also had the opportunity to identify and prioritize areas ripe for future quality improvement efforts. Conference participants identified specific areas of focus for improving child health quality while reducing costs. Moving forward, the BEACON Executive Committee will use this information to build priorities for the next phase of Ohio's child health quality improvement efforts.

List of Appendices

Appendix A: Invitation List....17

Appendix B: Beacon Project Overview....19

Appendix C: Office of Health Transformation Strategies....21

Appendix D: Criteria for Identifying Priorities for Quality Measurement....22

Appendix D: Outcomes for the Health of Ohio's Children....23

Appendix E: Pediatric Psychiatry Network....24

Appendix F: Concerned about Development Initiative....26

Appendix G: Ohio Obesity Initiatives....28

Appendix H: Ohio Perinatal Quality Collaborative (OPQC)....30

Appendix I: Ohio Children's Hospitals Solutions for Patient Safety....32

Appendix K: Quality Measures Chart....34

Appendix L: Ohio Health Plans FY 2010 FFS Child Population Summary....35

Appendix M: Ohio Medicaid Children Preventative Episodes of Care....36

Appendix N: Reading Materials....37

RSVP List	
Name	**Organization**
Alicia Leatherman	Ohio Department of Job and Family Services
Allison Lorenz	Government Resource Center
Andrew Wapner	Ohio Department of Health
Andy Jones	Ohio Department of Job and Family Services
Ann Nevar	Rainbow Babies and Children's Hospital
Audrey Blake	Ohio Department of Health
Barbara Rose	Cincinnati Children's Hospital- Ohio Perinatal Quality Collaborative
Barry Jamieson	Government Resource Center
Beth Carberry	Cleveland Clinic Foundation
Beth Ferguson	Ohio Department of Mental Health
Beverly Wargo	Bureau of Child and Family Health Services
Bob Campbell	Ohio Department of Health
Carole Carstens	Ohio Department of Mental Health
Christina Williams	Ohio Hospital Association, The Quality Insitute
Chuck Drake	Ohio Department of Job and Family Services
Dan Hecht	Ohio Department of Job and Family Services- Bureau of Health Services Research
Dan Weston	Government Resource Center
Dana Mocek	Molina Health Care
David Engler	Ohio Hospital Association, The Quality Insitute
Debbie Saxe	Ohio Department of Job and Family Services
Debra Moscardino	Ohio Department of Job and Family Services
Dr. Carole Lannon	Cincinnati Children's Hospital Medical Center
Dr. Ed Donovan	Cincinnati Children's Hospital- Ohio Perinatal Quality Collaborative
Dr. Kelly Kelleher	The Research Insitute at Nationwide Children's Hospital
Dr. Leona Cuttler	Rainbow Babies and Children's Hospital
Dr. Linda Post	Ohio Association of Health Plans
Dr. Marion Sherman	Ohio Department of Mental Health
Dr. Mary Applegate	Ohio Department of Job and Family Services
Dr. Michael Bird	Akron Children's Hospital
Dr. Uma Kotogal	Cincinnati Children's Hospital Medical Center
Dr. Vera Hupertz	Cleveland Clinic
Dr. William Cotton	Nationwide Children's Hospital
Dushka Crane-Ross	Government Resource Center
Greg Moody	Office of Health Transformation
Harvey Doremus	Ohio Department of Job and Family Services
Heather Kaplan	Cincinnati Children's Hospital Medical Center
Heather Schmaltz	Nationwide Children's Hospital
Hilary Metelko	Ohio Department of Health
Holly Pendelton	Dayton Children's Medical Center
Holly Saelens	Amerigroup Community Care
Jason Smith	Ohio Association of Health Plans

Jeff Spears	Ohio Department of Youth Services
Jessie Cannon	Ohio Business Roundtable
Jo Bouchard	Ohio Department of Health
John Campo, MD	The Ohio State University/ Nationwide Children's Hospital
Jon Barley	Ohio Department of Job and Family Services- Office of Ohio Health Plans
Joyce Deptola	Rainbow Babies and Children's Hospital
Kara Miller	Ohio Department of Job and Family Services- Medicaid
Karen Boester	Ohio Department of Job and Family Services- Medicaid
Karen Hughes	Ohio Department of Health
Kate Mahler	Ohio Academy of Family Physicians
Kathy Coate-Ortiz	Ohio Family and Children's First Council
Katy Shanahan	Channing and Associates
Kay Rietz	Ohio Department of Mental Health
Kraig Knudsen	Ohio Department of Mental Health
Lisa Hatton	Molina Health Care
Lori Deacon	Ohio Department of Health
Lori Mulichak	Buckeye Community Health Plan
Lorin Ranbom	Government Resource Center
Mark Rizzutti	Ohio Department of Job and Family Services- Medicaid- Bureau of Health Services Research
Mary Haller	Ohio Department of Job and Family Services- Office of Ohio Health Plans
Mary Wachtel	Voices for Ohio's Children
Maureen Corcoran	Ohio Department of Job and Family Services
Melissa Bacon	Ohio Children's Hospital Association
Melissa Saladonis	Cincinnati Children's Hospital Medical Center
Melissa Wervey Arnold	Ohio Chapter, American Academy of Pediatrics
Michael Schraeder	Ohio Department of Mental Health
Michael Sorter	Cincinnati Children's Hospital
Monica Juenger	Office of Health Transformation
Nick Lashutka	Ohio Children's Hospital Association
Patrick Kanary	Kent State University
Peg Burns	The Ohio Council
Richard Brilli	Nationwide Children's Hospital
Roni Christopher	Cincinnati Children's Hospital- Government Resource Center
Sean Gleeson	Nationwide Children's Hospital
Sondra Crayton	Bureau of Early Intervention Services
Sue Ohler	Toledo Children's Hospital
Susan Ford	Rainbow Babies and Children's Hospital
Terre Garner	Ohio Federation for Children's Mental Health
Theresa Seagraves	Ohio Department of Health

BEACON Council is an evolving statewide public/private partnership which enables and facilitates collaboration among more than 21 key children's provider organizations, four state agencies and a number of children's advocates. BEACON is the acronym for the Best Evidence for Advancing Child Health in Ohio NOW! This partnership encourages and supports initiatives that achieve measurable improvements in children's and adolescents' healthcare and outcomes through improvement science and a Quality Improvement Infrastructure.

The BEACON Council Mission is to improve the quality of care leading to improved health outcomes of care and reduced cost with a special emphasis on Medicaid-eligible children, youth and their families. To improve quality, outcomes and reduce costs requires a strong public/private partnership to support projects targeted to important health issues; the establishment of a sustainable, quality improvement infrastructure; and collaboration.

Concerned About Development Initiative, including the Autism Diagnosis Education Pilot Program

This project aims to measurably improve outcomes for young children in Ohio through the identification, evaluation, referral and treatment of children at risk for or with delayed development, autism, and social emotional concerns. Efforts included raising public awareness of early signs of autism and delayed development, improving screening in primary care practices, coordination of medical diagnosis and enhancing access to evidence-based services such as HelpMeGrow. **96 engaged primary care practices** (**more than 900 clinicians**) have built a foundation for future improvement efforts and significantly increased rates of screening.

Ohio Perinatal Quality Collaborative (OPQC)

This statewide effort aims, through the use of improvement science, to reduce preterm births and improve outcomes of preterm newborns as quickly as possible. Efforts involved the development of a statewide network infrastructure to support improvement activities. Initial projects focus on reducing bloodstream infections in hospitalized premature infants (24 NICUs) and near term deliveries without medical indications (20 OB units). **These project s reduced infections and NICU admissions with an estimated savings to Ohio of at least $11 million in annual total costs.**

Addressing the Childhood Obesity Epidemic

Several initiatives address the pediatric obesity epidemic in Ohio, where one-third of all children are overweight or obese. Building on a pilot project with 15 primary care practices, the Ohio chapters of the AAP and OCHA are working to implement screening and care processes in primary care settings that promote healthy activity and nutrition. A website, toolkits, patient handouts, one-hour trainings, and in-depth work with 26 primary care practices and community health centers is underway, integrating the Ounce of Prevention program. An assessment regarding how to incorporate BMI assessment and feedback into the EHR is also underway.

Solutions for Patient Safety (SPS)

All 8 children's hospitals in Ohio are participating in this project to improve outcomes in surgical site infections and medication safety. This important work is funded by Cardinal Health and the Ohio Business Roundtable. So far, this project has resulted in a 60% reduction in surgical site infections in designated procedures and a 34.5% reduction in overall adverse drug events. **This has saved an estimated 3,576 children from unnecessary harm and over $5.2 million in health care costs**.

Pediatric Psychiatry Network (PPN)

For primary care physicians throughout Ohio, the Pediatric Psychiatry Network provides access through a toll-free telephone number 24/7 to child and adolescent psychiatry decision support, education and triage services to help diagnose and treat their patients with psychiatric issues.

Additional Projects that are underway or being designed include:

- Maximizing enrollment of Medicaid eligible children & maintaining stability of coverage
- Managed care well child screening initiative
- Help Me Grow-Home Visiting, including maternal depression screening
- System of Care for Kids Mental Health; including early childhood consultation, juvenile justice and other components

All of these projects employ the following tenets, which we believe are essential to improving outcomes for children:

- Work with practitioners to improve care at the front-lines
- Use quality improvement science methods to accelerate and sustain changes in care and outcomes
- Utilize data to identify gaps in children's care and outcome
- Address and inform change at the family, practice, system, and policy level
- Build on the strengths of partners to achieve impact and broad range

COLLABORATING TO IMPROVE CARE FOR OHIO'S CHILDREN

- Ohio Academy of Family Physicians
- Ohio Chapter of the American Academy of Pediatrics
- Voices for Ohio's Children
- Ohio Children's Hospital Association
- Ohio Department of Job and Family Services
- Ohio Department of Health
- Ohio Department of Mental Health
- National Alliance for the Mentally Ill of Ohio
- Government Resource Center, Ohio State University
- American College of Obstetricians and Gynecologists

Ohio Department of Health, 246 N High Street, Columbus, OH 43215
Karen Hughes, MPH, Chief, Division of Family and Community Health Services
Ph: 614.644.7848 Fax: 614.728.9163 Email: Karen.Hughes@odh.ohio.gov
And
Harvey Doremus, Senior Strategic Policy Advisor, Childhealth
Ohio Department of Job & Family Services, Office of Ohio Health Plans
50 W.Town St. Columbus, OH 43215
Email: Harvey.Doremus@jfs.ohio.gov
http://www.odh.ohio.gov/beacon

Ohio | Governor's Office of Health Transformation

With forward thinking, solutions-oriented strategies we can transform Ohio into a model of health and economic vitality - and bring the system back in line with our heartland values:

Market- Based

Reset the basic rules of health care competition so the incentive is to keep people as healthy as possible.

Personal Responsibility

Reward Ohioans who take responsibility to stay healthy- and expect people who make unhealthy choices to be responsible for the cost of their decisions.

Evidence-Based

Rely on evidence and data to complement a lifetime of experience, so doctors can deliver the best quality care at the lowest possible cost.

Transparent

Make information about price and quality transparent, and get the right information to the right place at the right time to improve care and cut costs.

Value

Pay only for what works to improve and maintain health- and stop paying for what doesn't work, including medical errors.

Primary Care

Transform primary care from a system that reacts after someone gets sick to a system that keeps people as healthy as possible.

Chronic Disease

Prevent chronic disease whenever possible and, when it occurs, coordinate care to improve quality of life and help reduce chronic care costs.

Long-Term Care

Enable seniors and people with disabilities to live with dignity in the setting they prefer, especially their own home, instead of a higher-cost setting like a nursing home.

Innovation

Innovate constantly to improve health and economic vitality - and demonstrate to the nation why Ohio is a great place to live and work.

BEACON Council Quality Measures Retreat
February 8, 2011
Criteria for Identifying Priorities for Quality Measurement

Consider the following criteria in identifying priorities. Our work should be consistent with Governor Kasich's principles and yield short/ long term cost savings. In addition consider the following:

- Importance
  - -Do the measures reflect unequivocally important aspects of patient care?
- Evidence-based
  - Is there scientific research demonstrating the accuracy and importance of the measure?
- Impact
  - Potential for and extent of significant effect on the population?
- Preventable & Actionable
  - Can a poor score be prevented through proper care?
  - Is excess variation in the data accounted for by factors unrelated to quality of care?
- Genuine Quality Improvement
  - Can the measurement rate be improved without improving quality?
- Data Integrity & Measurability
  - Can a provider accurately collect the data from its records?
  - Does the measure adequately measure the construct it attempts to measure?
- Burden & Feasibility
  - Does calculating the measure place undue burden on the providers?
- Variance
  - Is there sufficient variability in performance among providers to allow for comparison?

Outcomes for the Health of Ohio's Children

- Health Home
  - Pediatric/Psychiatry Network
  - System of Care for Kids Mental Health & At Risk for Out of Home Care
- Prevention
  - Concerned about Development & Autism Screening
  - Help Me Grow Home Visiting, inc. maternal depression screening
  - Managed care well child screening Initiative
  - Childhood Obesity
  - Early Childhood Mental Health
- Innovation & Cost Effectiveness
  - Ohio Perinatal Quality Collaborative
  - Solutions for Patient Safety initiatives
  - Maximizing enrollment of eligible children & Maintaining stability of coverage

Pediatric Psychiatry Network

The Pediatric Psychiatry Network is a private/public collaborate initiative of the Ohio Department of Mental Health, many of Ohio's Children's Hospitals and child & adolescent psychiatry residency training programs. Development work started in 2008 and ran over the last two years. With funding from a Transformation State Incentive Grant (TSIG) from SAMSHA this technologically supported system went live on Oct 7, 2010.

The services are available to provide a decision support system for primary health care providers in screening, diagnosing, treatment and medication management of children and adolescents with behavioral health conditions. Through the system community health care providers can either utilize the dedicated toll-free number, 24 hours a day and obtain a provider to psychiatrist consultation regarding their patients or they can request a consult or information through a dedicated website. The website also contains protocols for common psychiatric illnesses as well as other educational materials, links and information regarding local mental providers and links to the participating provider hospitals.

The infrastructure of PPN also includes videoconferencing equipment located at all the participating provider sites. As remote community sites are identified with secure video capabilities patients who require a face to face consultation with a child or adolescent psychiatrist will be able to utilize telepsychiatry services within their own community or medical home.

All of these services facilitate and support high quality, cost effective integrated health care within the patients' medical home whenever possible. The decision support services help to bridge the knowledge gap that may exist for primary health care providers in the area of behavioral health. Through the use of available technology the network helps to increase access to and expand the services of the very limited child and adolescent psychiatric specialists into rural and underserved areas in an efficient and cost effective manner. Additionally, the technology infrastructure allows for dissemination of training opportunities and quality improvement efforts.

Project Goals and Accomplishments

As of December 31, 2010, 49 consults had been completed through the PPN call center from various locations throughout the state. The website usage was reported to be 688 hits through January 31, 2011. Initial feedback from community physicians has been very positive.

Next Steps

PPN work will continue to foster the collaborative work of all Ohio Children's Hospitals and child and adolescent psychiatric training programs in Ohio to increase access to high quality, timely, and cost effective service delivery for psychiatric care in support and partnership with primary health care providers. PPN will continue to seek a sustainable system to increase awareness of the program's services to community primary health care practitioners. PPN will expand both provider and patient care services, decision support, mental health informational resources and learning opportunities in an efficient, concise and cost effective manner to facilitate integrated care in the patient centered medical home.

- **Goal Aim**: Increase access to quality, cost effective and timely pediatric and adolescent behavioral health care within the patient medical home.

- **Strategic Aim 1**: Continue statewide direct marketing to community primary health care providers thus increasing total provider to psychiatrist consults 20% by 12/31/12 and 40% by 2015.

- **Strategic Aim 2**: Reduce avoidable ER usage for patients provided consult services through PPN by 5% by 12/31/12.

- **Strategic Aim 3**: To reduce avoidable hospitalizations for patients provided consult services through PPN due to a behavioral health related diagnosis 5% by 12/31/13.

- **Strategic Aim 4**: Increase number of trainings available through PPN on topics of behavioral health screening, diagnosis, treatment and medication management for primary health care providers 10% from 4/1/2011 through 12/31/12.

Concerned About Development Initiative

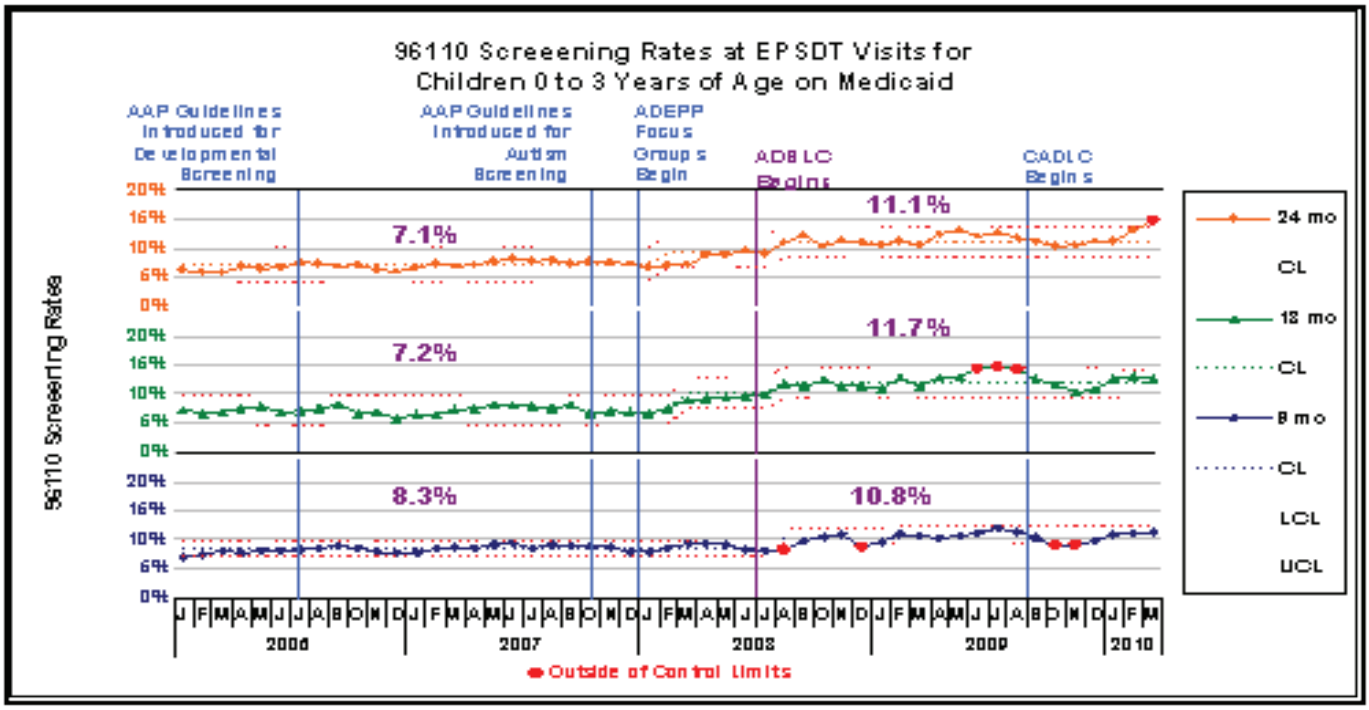
Efforts to address early child outcomes have been supported by the Ohio Department of Health Autism Diagnosis Education Pilot Project (ADEPP) grant to the Ohio chapter of the American Academy of Pediatrics (with subcontract to Akron Children's Hospital) and an Ohio Department of Job and Family Services Medtapp award to Cincinnati Children's Hospital Medical Center.

Project Goal and Accomplishments

These efforts aim to work at all levels of the health care system to ensure that systems are in place to support the appropriate identification, evaluation, and treatment of children with delayed development, autism, and social-emotional concerns.

- Raised awareness about importance of screening with community focus groups, an extensive media campaign, and through the website, www.concernedaboutdevelopment.org
- Trained clinical teams from 96 primary care practices representing > 900 physicians and trainees (4 waves 8-month learning collaborative) between Sept. 2008 and present; 74% of practices see > 25% Medicaid; 7 pediatric and 1 family medicine residency; self-reported screening rates from ~15% to 70%->90%
- Developed diagnostic partnerships in local communities to support and assessed potential linkages with child care providers - 28 community partnerships to aid in enhanced evaluation
- Endeavored to strengthen referral linkages with Help-Me-Grow (HMG) through development and testing of referral forms between practice and HMG; involvement of HMG in collaborative sessions to link with practices
- Built foundation of engaged primary care practices to participate in ongoing quality improvement initiatives

Percent of 9-mo. Charts with ASQ



Example of Medical record review shows increase in screening by practices; Medicaid claims data (below) by specific ages shows doubling of screening claims initial 24 months of QI initiative

Next Steps

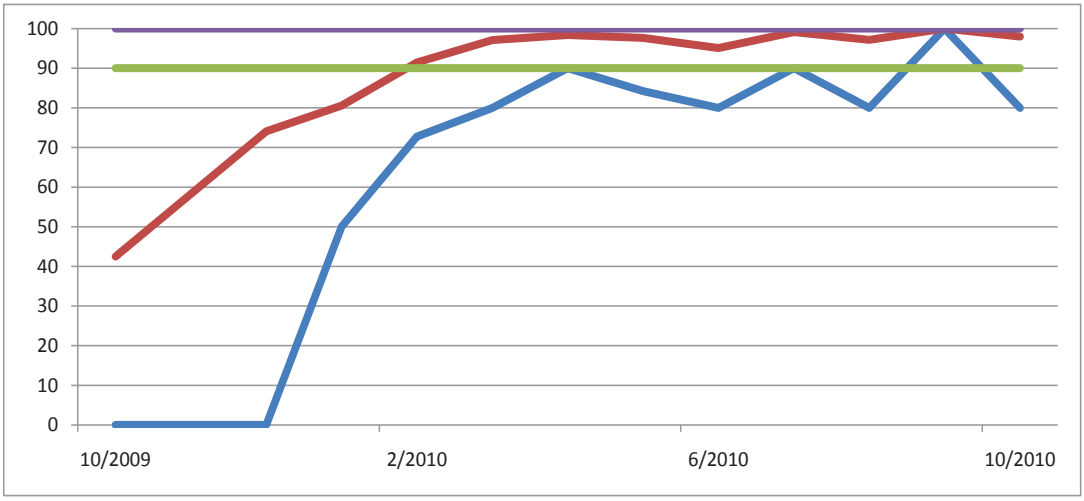
- Develop training module on delayed development and autism for use with Ohio child care workers and Help-Me-Grow; complete work with American Board of Pediatrics ononline module using Ohio CAD examples, measures, strategies which will be available for ongoing training beginning spring 2011
- Summarize assessment of resources and referral options for young children with social-emotional concerns
- Build on engaged network of 96 primary care practices throughout Ohio to develop additional efforts (i.e. linkages and training to Pediatric Psychiatry Network, care coordination and primary care medical home model,)

Ohio Obesity Initiatives

Ohio has several pediatric obesity initiatives. The Ohio Department of Health has provided funding for 1) the Ohio Chapter of the American Academy of Pediatrics to implement the Ounce of Prevention program in an effort to help primary care providers address the growing epidemic of childhood obesity 2) the Ohio Children's Hospital Association to support Community Health Centers in adopting office systems to address pediatric overweight and obesity, and 3) research on obesity in Ohio, through the Center for Child Health & Policy, RB&C, CWRU. The Ohio Department of Jobs and Family Services awarded a Medtapp grant to Cincinnati Children's Hospital Medical Center for a pilot project (Healthy Kids Ohio).

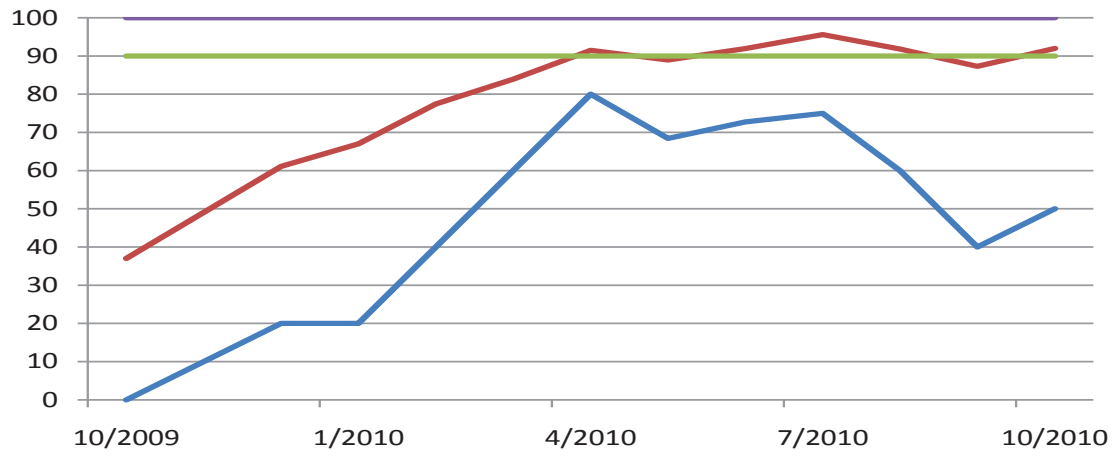
Project Goals and Accomplishments

- These projects work at multiple levels of the health care system to address the pediatric obesity epidemic in Ohio where one-third of all children are overweight or obese.
- The initial JFS-funded pilot project identified what tools and strategies support the implementation of primary care offices systems for the prevention, identification, assessment, and treatment of pediatric overweight and obesity; this project worked with 15 primary care practices in Greater Cincinnati (private practices, community health centers, school-based clinic, oncology clinic) for one year: 3 workshops, monthly data and feedback, monthly collaborative calls
- Current ODH-supported statewide initiative involving community health centers and private practices
    - Key informant interviews with CHCs and community partners regarding barriers, challenges
    - Workshops in Cincinnati, Cleveland, and Columbus involving 26 primary care practices (14 CHCs and 12 private practices) with ongoing data collection, monthly webinars, sessions on motivational interviewing, and healthy eating resources
    - Ounce of Prevention and 5-2-1-0 Healthy Habits resources
    - EHR assessment for incorporating BMI percentile and feedback reports
    - Ounce of Prevention toolkits, patient handouts, and one-hour trainings: 5 regional/in-person and 8 webinars
    - Use of NCQA HEDIS pediatric obesity measures
    - Development and launch of www.theounceofprevention.org website to promote reducing childhood overweight and obesity to healthcare providers, parents and children
- Lessons learned in pilot project led to CDC-funded WeTHRIVE program in Hamilton County



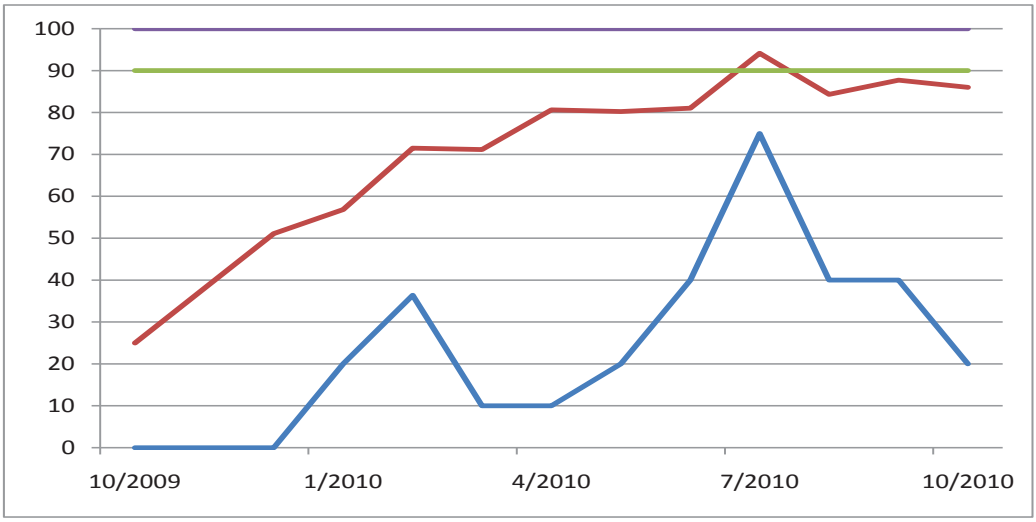
BMI Percentile Documentation

Nutrition Counseling/ Referral



Physical Activity Counseling/Referral

These run charts from the pilot project are examples of improvements made in office processes by clinical teams to identify BMI and provide counseling regarding healthy eating and activity (NCQA HEDIS measures).



Next Steps

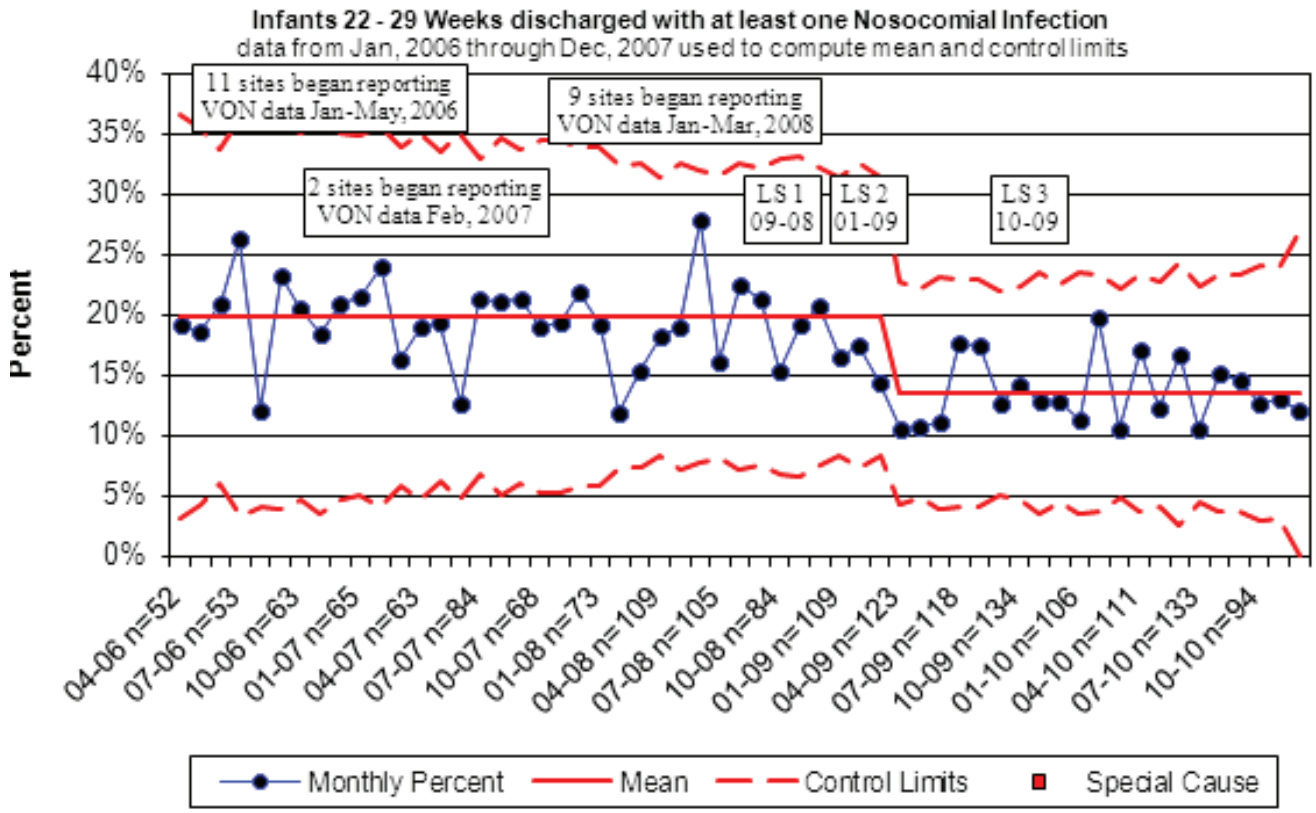
Continued support for practices participating in HKO-OP through June 2011, as well as 2 additional regional trainings and 24 office-based trainings, primarily in Appalachian Ohio, sponsored by Ohio AAP. Summary of key informant interviews and lessons learned from EHR BMI assessment.

Ohio Perinatal Quality Collaborative

The Ohio Perinatal Quality Collaborative (OPQC) improvement efforts target the population of all Ohio pregnancies and all families with women of childbearing age. With funding and support from the Ohio Departments of Job & Family Services and Health, the OPQC mission is to rapidly reduce the proportion of pregnancies with poor outcomes related to prematurity and is open to all Ohio perinatal prevention and care providers, consumers, payers and planners. 24 Ohio hospitals, including all children's hospitals, actively participate in OPQC. The maternity hospitals participating in OPQC Phase 1 account for 47% of Ohio's 150,000 annual births. In addition, 96% of Ohio's very preterm infants are cared for in OPQC's participating neonatal intensive care units (NICU).

Project Goals and Accomplishments

1. The first OPQC NICU project aimed to reduce hospital-associated infections (HAI) among preterm infants. Figure 1 shows that, among Ohio's 24 participating NICUs, infections have been reduced by 20% from 18% to 14%. Insertion and maintenance bundle development and use at sites contributed to this reduction.



OPQC has submitted preliminary results of a study using data from the cost accounting systems of three large Ohio hospitals. This study showed that preventing infections in a typical NICU with 200 annual, preterm admissions would result in 5 fewer infection-related deaths, 131 fewer bed days and $459,000 in cost savings. For Ohio overall this translates to at least **approximately $1.2 million in annual health care cost savings.**

2. The first OPQC OB project aimed to reduce unnecessary, planned, late preterm and near term deliveries at 36 to 38 weeks gestational age. Figure 2 shows that, since initiating this OPQC project, more than 12,000 births have moved from occurring prior to the due date to full term (39 to 41 weeks). Approximately 250 NICU admissions and some infant deaths have been avoided. Compared to the baseline period before this project, this work, by 20 large Ohio maternity hospitals and their staffs represents a major, positive transformation of obstetrical care in Ohio and **at least approximately $10 million in annual Ohio health care cost savings.**

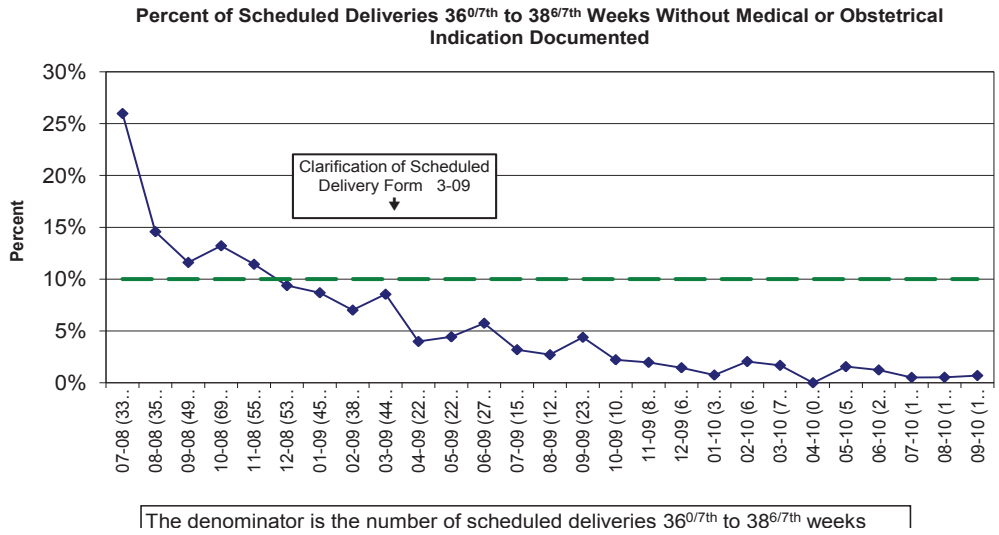


Figure 1: Reduction in deliveries at 20 OPQC hospitals w/o a medical reason at 36-38 weeks gestational age 2 years experience; **150-250** near term infants admitted to the NICU per year.

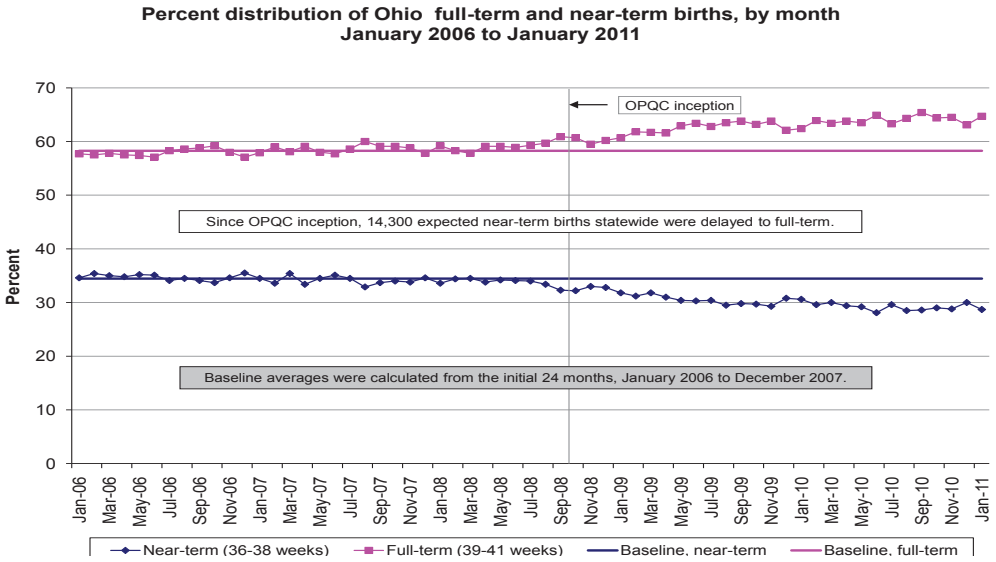


Figure 2: From August 2008 to September 2010, the number of Ohio births 36-38 weeks was **12,000** fewer compared to the number expected based on the preceding.

* Partnering with the Ohio Dept. of Health (ODH) to use birth certificate data for population health measurement, OPQChas gained national recognition for using and improving vitalrecords data.

Next Steps:Phase 2 for OPQC in 2011

- Develop and plan for next OB improvement topic: 2 topics in the pipeline w OB clinical leaders
- Develop an additional bundle (skin care or human milk feeding) to infection topic in NICU's
- Disseminate successful practices from scheduled delivery project and infection project to hospitals and providers across the state
- Improve birth certificate data entry quality and use of vital stats as population health outcome measure

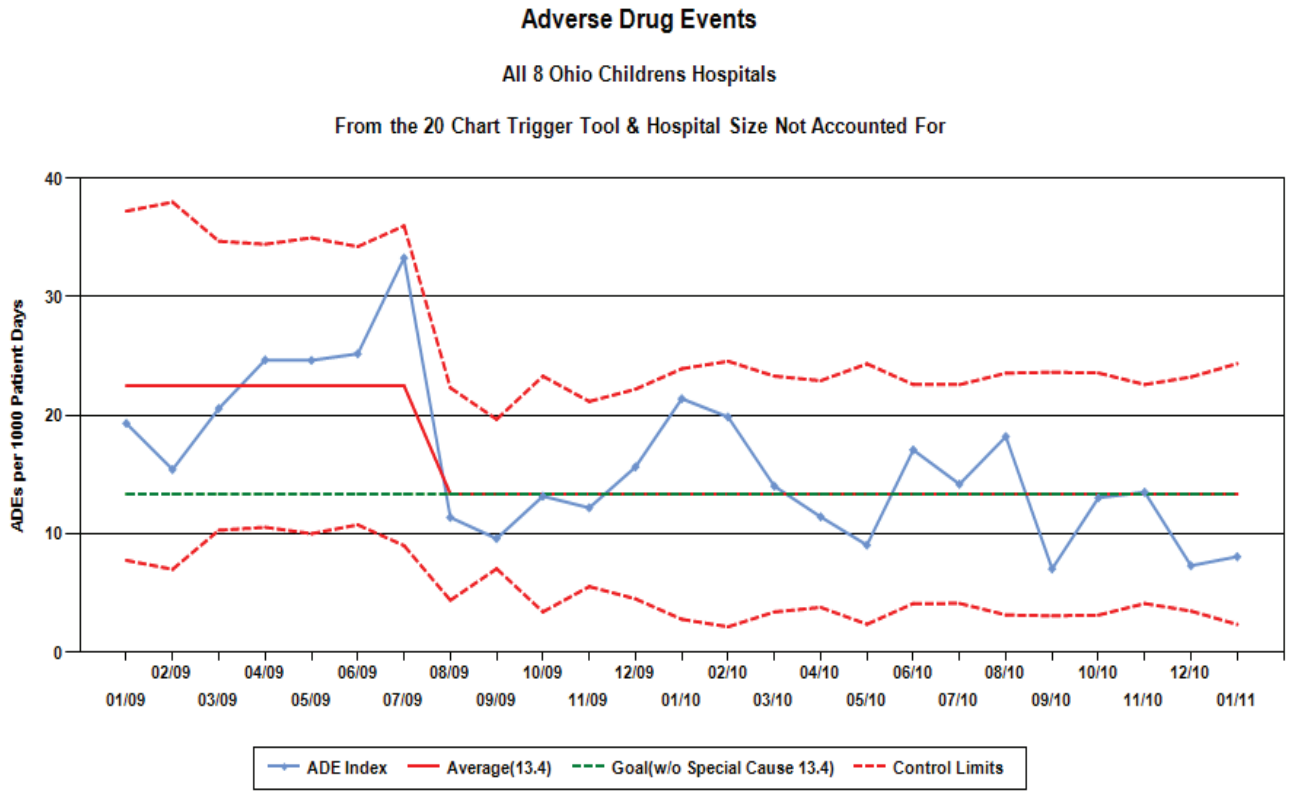
Ohio Children's Hospitals Solutions for Patient Safety

The Ohio Childrens' Hospitals Solutions for Patient Safety Collaborative (SPS),founded in January 2009,is a collaboration of the Ohio Children's Hospital Association, the Ohio Business Roundtable and the eight children's hospitals in Ohio. The project is funded by Cardinal Health, with the support of Ohio Medicaid. The eight participating hospitals are; Akron Children's Hospital, The Children's Medical Center, Dayton, Cincinnati Children's Hospital Medical Center, Nationwide Children's Hospital, Columbus, Rainbow Babies & Children's Hospital, Cleveland, Toledo Children's Hospital, St. Vincent Mercy Children's Hospital, Toledo and Cleveland Clinic Children's Hospital.

Project Goals and Accomplishments

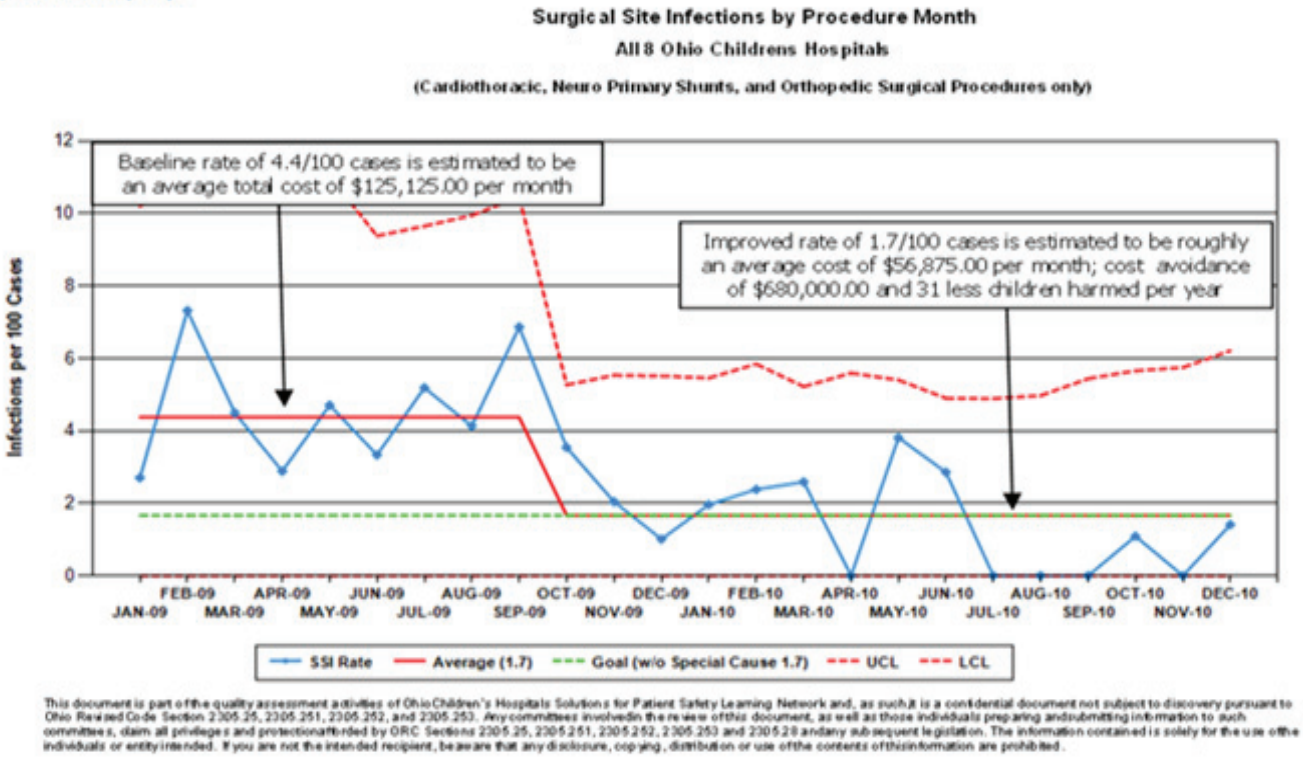
The initial goals of the pediatric collaborative were aimed at reducing adverse drug events (ADE) and surgical site infections (SSI) in eight pediatric hospitals in Ohio. The collaborative worked together to share methods and processes that improved patient care and achieved significant success in reducing ADEs and SSIs.

Solutions for
Patient Safety
Every patient. Every day.



	01/09	02/09	03/09	04/09	05/09	06/09	07/09	08/09	09/09	10/09	11/09	12/09	01/10	02/10	03/10	04/10	05/10	06/10	07/10	08/10	09/10	10/10	11/10	12/10	01/11
ADE Index	19.3	15.4	20.6	24.7	24.6	25.2	33.3	11.4	9.6	13.2	12.2	15.6	21.4	19.9	14	11.4	9	17.1	14.2	18.2	7	13	13.5	7.3	8.1
Patient Days	932	843	1,361	1,419	1,299	1,469	1,112	1,494	3,024	1,215	1,969	1,535	1,075	957	1,213	1,313	995	1,406	1,410	1,154	1,137	1,151	1,407	1,232	992
ADEs	18	13	28	35	32	37	37	17	29	16	24	24	23	19	17	15	9	24	20	21	8	15	19	9	8
# of Hospitals	7	7	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8

As shown in the graph, the ADE work has resulted in a reduction of ADEs from 23 per 1000 patient days to 13 ADEs per 1000 patient days. This improvement in the ADE rate across the collaborative has resulted in a savings of $4.5 million dollars per year and an estimation of 3552 less children harmed per year.



This document is part of the quality assessment activities of Ohio Children's Hospitals Solutions for Patient Safety Learning Network and, as such, it is a confidential document not subject to discovery pursuant to Ohio Revised Code Section 2305.25, 2305.251, 2305.252, and 2305.253. Any committees involved in the review of this document, as well as those individuals preparing and submitting information to such committees, claim all privileges and protections afforded by ORC Sections 2305.25, 2305.251, 2305.252, 2305.253 and 2305.28 and any subsequent legislation. The information contained is solely for the use of the individuals or entity intended. If you are not the intended recipient, be aware that any disclosure, copying, distribution or use of the contents of this information are prohibited.

The SSI graph shows the collaborative started with a baseline rate of 4.4 SSIs per 100 cases. After two years, the SSI rate across the collaborative has improved to a rate of 1.7 SSIs per 100 cases. This is an estimated cost avoidance of $680,000.00 and 31 less children harmed per year.

Next Steps

Based on the success of the ADE and SSI efforts, the collaborative is expanding the work across the state to eliminate all serious harm in Ohio's children's hospitals and in the course of doing so, make Ohio the safest place in the country for children to receive health care. In addition, the collaborative hopes to reduce the overall cost of health care in the state, develop an ongoing learning network, and build a sustainable state-wide infrastructure that makes Ohio the national leader in pediatric quality and safety. A serious safety event is defined as any deviation (error or mistake) that reaches the patient and results in moderate to severe harm or death. Listed below are the aims for the next phase of the SPS project:

- Global Aim: Eliminate all Serious Harm across the 8 Ohio Children's Hospitals
- Strategic Aim 1: To reduce the number of State-wide Serious Harm Events by 50 % by 12/31/13. Thenfurther reduce the number by a total of 95% by 12/31/15.
- Strategic Aim 2: To reduce the 12 month rolling average rate of SSE's by 50% from the highest rate detected in the first year of measurement across the 8 Ohio Children's Hospitals by 12/31/12. Then, further reduce the rate by a total of 75% by 12/31/15.

Quality Measures	CHIPRA Measures	Stage 1 EHR Meaningful Use	Ohio Medicaid Managed Care
Preventative Care			
Well-Child Care			
Well-Child Visits First 15 Months of Life	CHIPRA		CFC
Well-Child Visits 3rd/4th/5th/6th Years of Life	CHIPRA		CFC
Adolescent Well-Care Visits	CHIPRA		CFC
Lead Screening			
Lead Screening in Children			CFC
Obesity			
Weight Assessment & Counseling, BMI Documentation 2-18 Year Olds	CHIPRA	EP	
STIs (Sexually Transmitted Infections)			
Chlamydia Screening in Women	CHIPRA	EP	
Developmental Assessment			
Screening Using Standardized Screening Tools for Potential Delays in social and emotional Development	CHIPRA		
Prenatal/ Perinatal			
Prenatal Screening for Human Immunodeficiency Virus (HIV)		EP	
Prenatal Care: Anti-D Immune Globulin [D(Rh) negative women]		EP	
Frequency of Onging Prenatal Care	CHIPRA		CFC
Timeliness of Prenatal Care	CHIPRA		CFC
Percent of Live Births Weighing Less than 2,500 grams	CHIPRA		CFC I
Cesarean Rate for Low-Risk First Birth Women	CHIPRA		
Cesarean Section Rate			CFC I
Prenatal and Postpartum Care: Postpartum Care Rate Only (PPC)			CFC
Immunizations			
Childhood Immunization Status	CHIPRA	EP	
Immunization for Adolescents	CHIPRA		
Dental			
Annual Dental Visit			CFC
Preventive Dental Services (EPSDT)	CHIPRA		
Acute Treatment			
Access to Care			
Children and Adolescents' Access to Primary Care Practicioners	CHIPRA		CFC
Emergency Department Utilization	CHIPRA		
Emergency Department Diversion			CFC
Dental			
Dental Treatment Services (EPSDT)	CHIPRA		
Inpatient/ Acute Care			
Pediatric Catheter-Associated Blood Stream Infection Rates	CHIPRA		
Upper Respiratory			
Otitis Media with Effusion (avoidance of inappropriate use of antimocrobials)	CHIPRA		
Appropriate Testing for Children with Pharyngitis	CHIPRA	EP	
Chronic Condition Management			
Asthma			
Use of appropriate Medications for People with Asthma, age 5 to 50		EP	CFC
Asthma Assessment		EP	
Asthma: Pharmacologic Therapy		EP	
Annual Number of Asthma Patients with >1 Asthma Related ER Visits	CHIPRA		
Emergency Department use for Asthmatics			CFC I
Behavioral Health			
Follow-up care for Children Prescribed ADHD Medication	CHIPRA		
Follow-up After Hospitalization for Mental Illness, ages 6 and older	CHIPRA		
Diabetes			
Annual Hemoglobin A1c Testing (children with diabetes)	CHIPRA		
Substance Abuse			
Initiation and Engagement of Alcohol and Other Drug Dependence Treatment: a. Initiation, b. Engagement, ages 13 and older		EP	
Satisfaction with the Experience of Care			
CAHPS 4.0 Child Medicaid Health Plan Survey w/ Chronic Conditions Measurement Set	CHIPRA		CFC

1- EP-Eligible Professional: physicians, dentists, nurse practitioners, nurse midwives
2- I indicates the measures is 'informational only'

Ohio Health Plans Fiscal Year 2010 Fee-for-Service Child Population Summary (under age 21)						
		Number of Unduplicated Children	Average # of Children per Month	Total Cost of Care for All Services*	Net Payment per Child	Net Payment per Child per Month
Children in Managed Care		1,247,225	1,017,814	2,350,623,979	1,885	192
FFS Children with NF or ICF MR Stay		603	447	56,391,248	93,518	10,523
FFS Waiver Children		6,937	6,096	316,229,894	45,586	4,323
Other FFS ABD Children		48,459	37,548	313,315,030	6,466	695
Children in Care and Foster Care Age Out		35,947	29,178	123,507,093	3,436	353
Other FFS CFC Children **		436,129	90,617	336,228,718	771	309
Other FFS Children ***		6,482	1,035	4,732,349	730	279
	Subtotal FFS	534,557	164,920	1,150,404,332	2,152	
	TOTAL ALL CHILDREN	1,781,782	1,182,734	3,501,028,310		

*Incurred in FY10 and paid through December 2010. Excluded prescription drug rebates and gross adjustments.

**Includes primarily retroactive, backdated and other initial enrollment months before transitioning to Managed Care.

***Includes MBIWD, ROMPIR, Presumptive, Alien, Refugee, BCCP, and Medicare Premium Assistance.

Appendix M: Ohio Medicaid Children Preventative Episodes of Care

	FFS					
	Patients	Episodes	Avg Days Admit	Pharmacy Expenditures	Total Expenditures	Average Cost per Episode
Prevent/ Admin Hlth Encounters	78,082	83,187	5.22	2,651,782	17,535,596	211
Mental Hlth- Neuroses, NEC	27,769	29,037	7.63	10,421,665	54,922,733	1,891.47
Infections- ENT Ex Otitis Med	46,715	49,488	3.7	709,252	11,561,121	234
Pregnancy w Vaginal Delivery	1,965	1,966	2.48	24,700	7,734,003	3,933.88
Newborns, w/wo Complication	17,424	17,622	4.97	4,111,436	85,271,493	4,838.92
Infections/ Respiratory, NEC	17,536	18,396	4.48	114,581	11,525,881	626.54
Asthma	11,583	12,479	2.49	6,546,173	13,999,316	1,121.83
Mental Hlth- Depression	7,487	7,640	6.01	1,739,510	22,196,955	2,905.36
Pneumonia, Bacterial	3,185	3,300	6.26	229,780	10,018,125	3,035.80
Otitis Media	19,469	22,829	4.49	524,624	6,006,211	263.10
Infec/Inflam- Skin/ Subcu Tiss	22,032	23,646	2.66	1,087,342	5,678,373	240.14
Mental Hlth- Antisocial Behav	5,889	6,460	7.02	2,827,747	22,838,132	3,535.31
Pregnancy w Cesarean Section	571	571	4.21	10,872	3,906,041	6,840.70
Mental Hlth- Bipolar Disorder	4,671	5,096	6.86	13,156,796	31,650,014	6,210.76
Oral and Dental Disorders, NEC	4,892	5,011	3.38	16,864	5,914,795	1,180.36
Croup	5,729	6,171	6.84	55,237	3,278,713	531.31
Eye Disorder, NEC	27,072	28,653	2.7	127,712	2,519,229	87.92
Mental Hlth- Substance Abuse	3,328	3,500	3.72	22,881	12,489,709	3,568.49
Gastroint Disord, NEC	9,944	10,254	5.8	373,549	5,362,170	522.93
Injury- Head/ Spinal Cord	5,950	6,084	10.89	211,078	7,071,088	1,162.24
Fracture/ Disloc- Upper Extrem	5,916	6,033	2.71	19,379	2,918,299	483.72
Hematologic Disord, Congenital	1,683	1,718	3.98	12,571,027	18,637,081	10,848.13
Injury- Musculoskeletal, NEC	12,184	12,587	4.47	27,550	3,339,635	265.32
Mental Hlth- Psychoses, NEC	3,750	4,281	6.76	635,539	14,449,112	3,375.17
Infections, NEC	8,968	9,167	6.65	139,876	1,762,449	192.26
Gastritis/ Gastroentenitis	5,315	5,490	3.36	106,051	2,156,457	392.80
Hemia/ Reflex Esophagitis	3,306	3,551	5.74	446,717	4,379,150	1,233.22
Anthropathies/ Joint Disord NEC	8,806	9,605	4.62	221,203	3,673,884	382.50
ENT Disorders, NEC	12,183	13,146	6.72	340,558	3,301,689	251.16
Cardiovasc Disord, Congenital	2,248	2,399	19.68	286,128	12,232,612	5,099.05
Condition Rel to Tx- Med/ Surg	1,053	1,148	8.78	471,455	8,812,406	7,676.31
Diabetes	2,011	2,151	2.81	1,621,783	4,167,723	1,937.57
Pregnancy w Compl or Abortion	3,899	3,973	2.72	79,896	2,621,851	659.92
Headache, Migraine/ Muscle Tens	5,060	5,486	3.33	153,960	1,897,126	345.81
Fracture/ Disloc- Ankle/ Foot	4,076	4,178	2.33	13,578	1,421,401	340.21

	MCP					
	Patients	Episodes	Avg Days Admit	Pharmacy Expenditures	Total Expenditures	Avg Cost per Episode
Prevent/ Admin Hlth Encounters	546,645	614,117	2.81	14,091,070	117,214,616	191
Mental Hlth- Neuroses, NEC	96,122	102,114	5.07	27,209,932	76,668,300	751
Infections- ENT Ex Otitis Med	400,153	450,415	2.42	6,277,749	65,829,472	146
Pregnancy w Vaginal Delivery	9,826	9,828	2.47	236,542	60,963,047	6,203.00
Newborns, w/wo Complication	66,782	67,629	3.74	15,119,451	60,153,910	889
Infections/ Respiratory, NEC	135,953	147,345	2.92	949,482	52,328,374	355
Asthma	68,350	75,550	2.19	34,844,212	49,366,694	653
Mental Hlth- Depression	27,750	28,428	5.29	4,616,190	44,740,880	1,573.83
Pneumonia, Bacterial	20,935	21,717	3.40	1,366,454	32,936,389	1,516.52
Otitis Media	163,535	222,756	3.07	4,561,414	31,978,521	144
Infec/Inflam- Skin/ Subcu Tiss	167,101	186,048	2.51	8,259,944	29,404,715	158
Mental Hlth- Antisocial Behav	17,484	19,433	5.81	2,523,927	24,733,856	1,272.78
Pregnancy w Cesarean Section	2,756	2,757	3.65	76,434	24,618,957	8,929.62
Mental Hlth- Bipolar Disorder	6,118	6,764	6.21	12,238,073	24,287,340	3,590.68
Oral and Dental Disorders, NEC	35,250	36,514	2.34	103,432	22,807,253	624.62
Croup	52,150	59,566	3.07	558,347	22,750,209	381.95
Eye Disorder, NEC	172,784	190,225	4.43	860,324	17,800,578	93.58
Mental Hlth- Substance Abuse	8,154	8,701	3.81	31,993	17,391,189	1,998.76
Gastroint Disord, NEC	68,061	71,507	3.49	1,741,352	15,796,672	220.91
Injury- Head/ Spinal Cord	35,222	36,237	4.80	996,892	15,590,340	430.23
Fracture/ Disloc- Upper Extrem	38,065	39,249	2.12	134,716	14,455,513	368.30
Hematologic Disord, Congenital	6,065	6,176	3.07	8,948,993	12,792,060	1,071.25
Injury- Musculoskeletal, NEC	75,462	78,087	3.65	152,343	11,885,821	152.21
Mental Hlth- Psychoses, NEC	4,596	8,470	5.89	588,411	11,128,251	1,313.84
Infections, NEC	73,812	76,892	3.00	1,175,144	10,892,129	141.65
Gastritis/ Gastroentenitis	44,023	,46273	2.16	608,412	10,680,672	230.92
Hemia/ Reflex Esophagitis	18,398	19,902	5.14	2,182,706	10,314,674	518.27
Anthropathies/ Joint Disord NEC	49,627	55,257	3.16	932,656	10,090,125	182.60
ENT Disorders, NEC	80,009	86,397	4.69	2,015,320	10,007,183	115.83
Cardiovasc Disord, Congenital	5,762	6,228	14.80	281,528	9,652,272	1,549.82
Condition Rel to Tx- Med/ Surg	3,071	3,146	6.25	565,039	9,024,418	2,868.54
Diabetes	4,980	5,431	2.26	4,450,552	8,397,530	1,546.22
Pregnancy w Compl or Abortion	10,193	10,575	2.63	314,673	7,728,295	730.81
Headache, Migraine/ Muscle Tens	28,878	32,143	3.02	830,106	6,857,797	213.35
Fracture/ Disloc- Ankle/ Foot	25,687	26,567	2.18	87,952	6,826,221	256.94

Reading Materials

Within Ohio, there is an evolving statewide collaboration among individuals and organizations that seeks to encourage and support initiatives that achieve measurable improvements in children's healthcare and outcomes through improvement science. This collaboration began with an initial project focused on optimizing developmental outcomes for young children and grew as we learned about similar work in other states.

For more information about BEACON and the February 8th conference and presentations, please visit the BEACON website at **http://www.odh.ohio.gov/landing/beacon/BEACONMeetingMaterials2011.aspx**.

Additional materials regarding BEACON can also be found at the Ohio Colleges of Medicine- Government Resource Center's website at **www.grc.osu.edu.**