



Translating medical knowledge into daily practice

Background: Continually improving the care we deliver is an obligation for all clinicians. Delivery of sub-optimal health care has been documented in every setting studied, including pediatric primary care. Mangione-Smith, et al recently reported that children in the U.S. receive less than half of the preventive, acute and chronic care that is recommended.¹ This is not because clinicians don't try to provide the best care possible. Providing high quality evidence-based care, primary care requires that physicians incorporate ever-increasing scientific knowledge and tools into their daily practice. They must provide care for children with routine needs, as well as for children with specialized and complicated needs, like those with cerebral palsy, depression, Down syndrome, celiac disease, Tourette syndrome, and many more. They must also guide patients and parents through a complex healthcare system, coordinate the care provided by specialists, and advocate for their patients with insurers and schools.

The Utah Pediatric Partnership to Improve Healthcare Quality (**UPIQ**), established in 2003, is a collaborative effort of organizations and individuals with a common interest in promoting evidence-based best practices and assisting physicians in implementing quality improvement at the practice level. UPIQ provides education, guidance, tools, measurement, and ongoing support to help bridge the gap between knowing best practices and consistently implementing them in practice. Led by the University of Utah Department of Pediatrics and the Utah Chapter of the American Academy of Pediatrics, UPIQ is a public-private partnership with support obtained through grants, foundations, state programs, and corporations.

Mission: to improve the health of Utah's children by promoting the incorporation of proven interventions, best practices, and ongoing, measurement-based improvements by physicians in their daily practice.

Approaches: UPIQ is a pioneer applying quality improvement (QI) principles and collaborative learning to pediatric primary care practice at the state level. Learning Collaboratives bring together practice teams (physician, nurse or MA, and office manager) for day-long "learning sessions" where relevant scientific evidence is presented, QI techniques are taught, and teams are assisted in developing goals and strategies for improvement. Practices receive ongoing support and technical assistance from UPIQ staff (and each other) through conference calls, site visits, and repeated practice assessments over 6-10 months. Topics have included: preventive services delivery, screening for developmental and social-emotional problems, asthma, ADHD, screening for oral health problems and maternal depression, and providing comprehensive care for children with special health care needs (Medical Home). UPIQ is currently leading projects aimed at improving obesity prevention, using motivational interviewing to effect behavioral change, and implementing medical home principles in practice. UPIQ offers pediatricians credit toward part 4 of the American Board of Pediatrics Program for Maintenance of Certification through their participation in our Learning Collaboratives.

Looking Forward: To date, UPIQ's Learning Collaboratives have involved over 180 clinicians from 83 practices statewide, involving over 40% of the state's pediatricians; 38 family physicians and 30 mid-level providers have participated in at least one project each. To make a substantial difference in the health of Utah's children, UPIQ needs to reach more practices with our curricula and support and to integrate our efforts with health system reform. We must also continue to identify collaborators, needs, and opportunities to help medical practices and to build a broad base of support for ongoing improvements in children's healthcare.

¹ Mangione-Smith R, DeCristofaro AH, Setodji CM, Keesey J, Klein DJ, Adams JL, et al. The quality of ambulatory care delivered to children in the United States. *NEJM*. 2007 Oct 11;357(15):1515-23.

Partners: UPIQ's Steering Committee includes the following representatives & organizations:

- Department of Pediatrics, University of Utah (UPIQ's administrative home)
 - *Chuck Norlin, MD and Paul Young, MD*
- Utah chapter, American Academy of Pediatrics
 - *Claudia Fruin, MD, President, and Gordon Glade, MD, Past-President and quality improvement expert*
- Utah Department of Health (UDOH)
 - > Division of Medicaid and Health Finance
 - *Gail Rapp, Director, Bureau of Managed Health Care*
 - *Charlene Frail-McGeever, MBA, Project Director, Children's Healthcare Improvement Collaboration*
 - > Division of Family Health and Preparedness
 - *Nan Streeter, MS, RN, Deputy Director*
- Intermountain Healthcare's Primary Care Clinical Programs
 - *Wayne Cannon, MD, Medical Director*
- *HealthInsight*, (the quality improvement organization for Utah and Nevada)
 - *Doug Hasbrouck, MD, Vice-President, Medical Affairs Utah*
- Utah chapter, American Academy of Family Physicians (UAFP)
 - *Liz Joy, MD, MSPH, also Senior Outcomes Researcher, Intermountain Healthcare; Clinical Associate Professor, Department of Family and Preventive Medicine, University of Utah.*
- Pediatric Education Services (PES) of Primary Children's Medical Center (PCMC)
 - *Jonell Murray, Administrative Manager*
- University of Utah Health Plans
 - *Julie Day, MD, Medical Director for Quality*
- Family Voices of Utah
 - *Gina Pola-Money - Director*
- Voices for Children
 - *Lincoln Nehring, JD – Senior Health Policy Analyst*
- Parent Representative and Advocate
 - *Lisa Wade*

Current staff:

- Director – Chuck Norlin, MD.
- Co-Directors – Gordon Glade, MD and Paul Young, MD
- Senior Program Manager – Kristi Colleran
- Quality Improvement Specialists –Candi Ramos, MPA/MHA, Sarah Naeole, MBA
- Administrative Assistant – Yvonne Stayer

Previous and current funding (since inception in 2003) – in addition to the generous in-kind and institutional support of the Partner organizations:

- Primary Children's Medical Center Foundation
- American Academy of Pediatrics (AAP) Community Access to Child Health (CATCH) grant
- Commonwealth Fund Assuring Better Child Development (ABCD2) grant / Utah Medicaid
- AAP Partnerships for Quality grants
- Church of Jesus Christ of Latter-Day Saints Foundation
- Asthma Program, Utah Department of Health (UDOH)
- US Maternal & Child Health Bureau, via Bureau of CSHCN, UDOH
- Centers for Disease Control & Prevention / Utah County Early Head Start and Medicaid
- Immunization Program, Utah Department of Health
- sanofi pasteur (immunization manufacturer) • Utah Medical Association Foundation
- Marriner S. Eccles Foundation • Abbott Laboratories
- CHIPRA Quality Demonstration grant / Utah and Idaho Medicaid/CHIP programs

UPIQ Learning Collaboratives

#1: Preventive Services – Learning Session: 10/23/03; # of practice teams: 14

Funding: Primary Children's Medical Center Foundation

Focused on a range of preventive services. Published as:

Young PC, Glade GB, Stoddard GJ, Norlin C. Evaluation of a learning collaborative to improve the delivery of preventive services by pediatric practices. *Pediatrics*. 2006 May;117(5):1469-76.

#2: Developmental Screening – Learning Session: 5/11/04; # of practice teams: 13

Funding: American Academy of Pediatrics (AAP) CATCH grant

Focused on periodic assessment of developmental progress in infants and young children, use of validated tools in practice, and appropriate referral for those identified with delays or at risk.

#3: Social and Emotional Screening of Infants – Learning Session: 10/15/04; # of teams: 11

Funding: ABCDII grant through Utah Medicaid

Focused on screening practices for identifying social and emotional problems in infants less than one year of age, and referring these young children for mental health assistance if problems are identified.

#4: Social and Emotional Screening of Toddlers – Learning Session: 5/25/05; 10 practice teams

Funding: ABCDII grant through Utah Medicaid

Focused on screening practices for identifying social and emotional problems in toddlers, and referring these children for mental health assistance if problems are identified.

#5: Attention-Deficit/Hyperactivity Disorder – Learning Session: 6/22/05; # of practice teams: 18

Funding: AAP Partnerships for Quality grant

Focused on improving care for patients with ADHD, including adherence to the American Academy of Pediatrics guidelines for the diagnosis and management of ADHD.

#6a: Medical Home/Integrated Services 1 – Learning Session: 4/7/06; # of practice teams: 12

Funding: federal Maternal Child Health Bureau (MCHB) Integrated Services grant through the UDOH

Focused on introduction of the Medical Home concept, improving care of children with special health care needs (CSHCN), and collaborating with community services

#7: Asthma – Learning Session: 4/26/06; # of practice teams: 12

Funding: Utah Department of Health (UDOH) contract

Focused on improving the care of children with asthma, including adherence to national guidelines and collaboration with subspecialists

#6b: Medical Home/Integrated Services 2 – Learning Session: 6/23/06; # of practice teams: 12

Funding: MCHB Integrated Services grant through the Bureau of CSHCN

Focused on newborn screening, hearing screening, vision screening in the Medical Home and collaborating with community services.

#8: Maternal Depression – Learning Session: 9/15/06; # of practice teams: 6

Funding: ABCDII grant through Medicaid

Focused on screening for maternal depression at pediatric well child visits, telemedicine used to involve providers in St. George (southern Utah)

#9: Early Childhood Oral Health Screening – Learning Session: 11/2&3/06; # of practice teams: 13

Funding: Federal grant through Utah Valley Early Head Start

Training pediatricians and family physicians to screening young children for oral health problems and application of fluoride varnish.

#6c: Medical Home/Integrated Services 3 – Learning Session: 12/1/06; # of practice teams: 11

Funding: MCHB Integrated Services grant through the Bureau of CSHCN

Focused on developmental, social emotional, and depression screening in the Medical Home and collaborating with community services.

#6d: Medical Home/Integrated Services 4 – Learning Session: 6/13/07; # of practice teams: 11
Funding: MCHB Integrated Services grant through the Bureau of CSHCN
Focusing on transition to adult care systems for CSHCN

#6e: Medical Home/Integrated Services 5 – Learning Session: 10/10/07; # of practice teams: 11
Funding: MCHB Integrated Services grant through the Bureau of CSHCN
Focused on transition to adult care systems for CSHCN

#10: Improving Immunization in Primary Care Practice – Project started: Winter, 2008
Funding: Phase 1 with CDC funds through the Utah Immunization Program
Phase 2 with also a donation from sanofi-pasteur
Using academic detailing and peer mentoring, IRB-waived study in 2 geographic areas

#11: Prescribing for Asthma in Children – Project started: Spring, 2008; # of practice teams: 7
Funding: Centers for Medicare and Medicaid Services through Utah Medicaid, 2 year project
Focusing on prescribing asthma medications in primary care, in-office 'academic detailing'

#12: Preventing, Identifying, and Treating Childhood Obesity – Learning Sessions: May and June 2008; # of practice teams: 18; second set in spring, 2009
Funding: participant fees, UDOH, Church of Jesus Christ of Latter-day Saints Foundation
Focusing on primary care interventions related to childhood overweight and obesity.

#13: Preventing, Identifying, and Treating Childhood Obesity – Learning Sessions: May and June 2009; # of practice teams: 13
Funding: American Academy of Pediatrics Utah Chapter, Church of Jesus Christ of Latter-day Saints Foundation, Marriner S. Eccles Foundation, Utah Medical Association Foundation, fees

#14: Early Identification and Diagnosis of Autism in the Medical Home and supporting Dental Homes for children with Autism and Developmental Disabilities

Project began: Winter, 2009; 8 practices in first year, 3-year project
Funding: Health Resources and Services Administration, through the Utah Department of Health

#15: Improving Short- and Long-term Outcomes of Newborn Screening – Project began: October, 2009; 3-year project, anticipate 8 practices will participate
Funding: Health Resources and Services Administration, through the Utah Department of Health

#16: Preventing, Identifying, and Treating Childhood Obesity – Learning Sessions: September and October 2010; # of practice teams: 7
Children's Health Insurance Program Reauthorization Act (CHIPRA) Quality Demonstration grant

#17: Motivational Interviewing to Effect Behavioral Change in Pediatric Practice – Learning Session: October, 2010; # of practice teams: 4, along with 4 physicians, 6 dieticians, and 1 NP
Funding: CHIPRA Quality Demonstration grant

#18: Improving Immunization Rates in Primary Care Practice – Project started: November, 2010; anticipate 7 practices will participate
Funding: CDC funds through the Utah Immunization Program
Using academic detailing and peer mentoring

#19: Medical Home Demonstration Project – First Learning Session: March 2011; 12 practices
Funding: CHIPRA Quality Demonstration grant