



Methods of Using QI Data and Statistical Process Control: The “Quick Start Guide”

SPPAC 2017 Preconference Workshop (3 CEs)

Ever bought a new camera and want to figure out how to take a decent photo right away? You would need a “quick start” guide. This workshop is for those who have little or no experience looking at quality improvement (QI) data who want to learn the basics needed to be able to collect and analyze data well enough to implement QI projects. QI activities are essential for all practitioners to optimize care for children. QI combines human psychology, appreciation of systems, theory of knowledge acquisition, and understanding of observations and variation. QI methods for collecting and analyzing data are different than they are in more traditional research activities. The scientific and statistical approach to understanding variation has led to profound improvement in industry. For this reason, efforts to rigorously apply these principals to the healthcare environment and beyond are underway.

This workshop exemplifies the collaborative efforts of applying quality improvement methods across several disciplines in an academic medical setting. The expertise and application of these methods will be demonstrated across medical specialties including neonatology, oncology, psychology, and other administrative functions within the hospital and beyond (e.g., lab setting, discharge planning). Topics to be covered include: differences between QI and research data; differences between common and special cause variation; types of data that can be used for a QI project; measures that are needed for a QI project; basics of effective sampling and choosing sample size; plotting data on run and control charts; and identifying special causes on a control chart to assess for process improvement. In addition, these concepts will be illustrated by 2 completed projects: 1) looking at increasing consults for psychosocial services in Oncology; and 2) decreasing the time to first appointment for outpatient psychological treatment.

Teaching strategies will involve didactics (< 50% of time) and mentored hands-on work with demonstrations and case-studies. Participants will be arranged in small groups to work collectively at applying concepts. Participants will be encouraged to bring an idea for project development during the course. The target audience for this workshop will be psychologists and other practitioners who practice in health care settings, including physicians, nursing, and social workers.

Based on the content of this talk, participants will be able to:

1. Construct a key driver diagram (“road map”) for their own project, including selection of a specific aim.
2. Compare and contrast how data is used in quality improvement research versus classical research.
3. Explain the difference between data types and measurement types used in quality improvement versus classical research.
4. Identify the components of a run chart used to track progress on quality improvement projects.
5. Develop and implement a QI project in their own clinical practice environment.

Target Learner Level: Introductory

Registration cap: 40

Presenters: Richard Brill, MD, FAAP, MCCM, Thomas Bartman, MD, PhD, Richard McClead, MD, M.H.A., Tammi Young-Saleme, PhD, & Catherine Butz, PhD

Dr. Rich Brill is the John F. Wolfe Endowed Chair in Pediatric Quality and Safety, and Chief Medical Officer. *Dr. Tom Bartman* is the Associate Medical Director for Quality. *Dr. Rick McClead* is the Associate Chief Medical Officer. Drs. Brill, Bartman, and McClead have conducted workshops at the Pediatric Academic Society annual meetings for the last 2 years. They have been asked to speak about quality improvement (QI) methods and related research

at numerous invited lectureships nationally. For several years, they have conducted quarterly trainings for medical staff, residents and fellows, as well as staff in psychology, and nursing at Nationwide Children's Hospital. They have also conducted semester – long courses (40+ hours) twice yearly for the past 5 years. Dr. Bartman participates in an annual 2-day QI training for a nationally-attended QI coaching conference for fellows in Neonatology. Drs. Brill and McClead are co-editors for a newly established journal, Pediatric Quality and Safety. *Dr. Tammi Young-Saleme* is the Psychosocial Director of the Hematology/Oncology/BMT Service, and has published on quality improvement. *Dr. Cathy Butz* is the Clinical Director for Pediatric Psychology.

COI Statement: The speakers have no conflicts of interest to declare.

Session Date/Time: Thursday, March 30th, 2017; 8:30-11:30 am



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