

Oral Presentation (OP) Abstracts

1 BUILDING ROBUST LEARNING SYSTEMS ACROSS AN ORGANIZATION OR COMMUNITY

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Background Increasingly, efforts to advance health and well-being across whole organization, health systems, and communities include many related initiatives aligned to a common mission or goal. Too often, the work across a system suffers from 'project-itis,' lacking rigor in consistent design and learning systems to set up the work for real-time learning in support of success towards ultimate aims. To evaluate the work of QI implementation at project and organizational levels, we require systematic approaches to answer key learning questions and accelerate progress to our aims.

Objectives and Methods To identify and apply approaches to organizational learning we used in 2 case studies, one at the organization and one at the community level, to learn from for system-wide impact. The Cincinnati, Ohio All Children Thrive (ACT) Learning Network uses guiding principles to support system alignment. These include: focus on unassailable goals, amplify the voices of those with lived experience and apply rigorous improvement science across the many sectors that influence health. The Institute for Healthcare Improvement (IHI) organization-based learning system is guided by 3 key evaluation questions. We developed or deployed a set of tools, and drawn from established Improvement and Implementation Science frameworks, to undertake a regular review of project progress, learn from and act on the programmatic and contextual factors that were enabling or impeding progress towards the project goals, and understand the causal pathway for the results we observed.

Results and Conclusions We report on system design principles drawn from the two case examples. ACT's learning system is applied at the neighborhood, city, and county level and has closed disparity gaps in a number of outcomes including pre-term births, hospitalizations, and educational outcomes. IHI applied a novel framework for improvement research and evaluation across its portfolio of project work (more than 40 projects spanning a variety of content areas, project designs, and geographic settings). Systematic learning approach can be applied at organizational or community level to evaluate and learn from initiatives that are underway and to accelerate the path to achievement of organizational and community improvement goals.

2 PLANNING AND RUNNING MORE RIGOROUS PDSA CYCLES

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Description The scientific rigor of quality improvement projects can be improved by incorporating the methods of planned experimentation into the design of PDSA test cycles.

These methods allow improvers to create strong evidence and to accelerate the rate of learning in improvement projects. This session will present an overview of planned experimentation, share approaches from two health care systems and provide participants with practice applying planned experimentation as part of quality improvement efforts.

3 A/B TESTING IN HEALTHCARE: HOW YOU CAN APPLY TECH INDUSTRY METHODS TO IMPROVE QUALITY IN YOUR SYSTEM

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Background Randomized trials are the gold standard of evidence in healthcare. But their use in QI remains limited, held back by a perception that they do not suit the fast-paced, adaptable world of QI. It doesn't have to be this way. At NYU Langone we draw on lessons from tech company A/B testing to build a learning healthcare system through RCTs. Now you can too.

Objectives Explain how NYU Langone's RapidRCT lab designs, implements, and iterates rapid RCTs in our healthcare system – and how other systems can do this too.

Methods Rapidly-iterated RCTs, of different operational changes within NYU. Presentation of two examples; an iterative RCT of pediatric vaccination reminders and a more complex RCT to identify who we should target with reminder phone calls for screening appointments.

Results A cleanliness/safety focused text, and a one-off text did not improve pediatric vaccination rates. But, two reminder texts 48hrs apart were effective (0.4 vaccines per child in intervention, compared to 0.3 in the control arm (p=0.02)). Reminder phone calls were effective for all groups (6.9% of gaps in care closed for intervention vs 0.5% for controls (p<0.001) but were most effective for the quartile of patients predicted to be least likely to close a gap on their own.

Conclusions Healthcare systems can implement RCTs quickly and produce highly robust evidence without undue burden on frontline staff. It can allow systems to tailor interventions to their populations – initial rounds of pediatric vaccine trial showed null results (even though interventions were effective elsewhere), and the call reminder trial showed that our reminders were more effective for some of our patients than others.

4 USE OF PLANNED EXPERIMENTATION TO DEMONSTRATE CARE MANAGEMENT EFFICIENCY IN PEDIATRIC SPECIALTY CARE

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Background Access to pediatric sub-specialty care is a national challenge with a clinician supply and demand mismatch. This creates an environment fostering delayed care with potential clinical implications.

Objectives This Planned Experiment was implemented to measure the efficacy of redesigning the care model in a