International Forum on
QUALITY & SAFETY
in HEALTHCARE
COPENHAGEN

15-17 May 2023
Bella Center | Copenhagen, Denmark

F9: What have we learned about the science of improvement? What's next?

Institute for Healthcare Improvement

BMJ

Learning Agents Report Back

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International Forum on Quality & Safety in Healthcare
Session F9. What have we learned about the science of improvement? What's next?
Copenhagen, Denmark
17 May 2023

Reminder of the Activity

Who are "Learning Agents?"

Everyone attending Improvement Science Symposium stream (6 sessions) was invited to participate as a Learning Agent and to share their breakthrough learning: ideas, methods, results that resonated

Builds upon last year's activity at International Forum in Gothenburg (forthcoming publication in *BMJ Leader*)

Did you hear about breakthrough ideas, methods, or results in the Improvement Science Stream?

Share them in the Learning Agents response form!

Relevant sessions:

○ A9. Introduction to the Science Symposium stream and new methodologies / evaluation design (Tuesday 11:00 - 12:15)

○ B10. The science of workforce and patient safety - the challenges and opportunities of technology for improvement (Tuesday 13:15-14:30)

○ C9. The science of workforce and patient safety (Tuesday 15:00-16:00)

○ D9. How can Improvement Science improve the quality of care? (Wednesday 11:00 - 12:15)

○ E9. Delivering equity and sustainability (Wednesday 13:15-14:30)

○ F9. What have we learned about the science of improvement? What's next? (Wednesday 15:00 - 16:00)

○ Other

Who participated?

Thank you!

In sharing themes:

31 survey responses from 25 learning agents

Both as of 12:50 PM CET, 17 May

~23 ideas shared (taking into account multiple themes submitted per form entry and subtracting blank responses)

In the synthesis:

IHI team members in Copenhagen (MM, PB) and offsite (Marina Renton, Angela Zambeaux)

3 learning agents Wednesday pre-keynote session

What have we learned so far? Emerging themes

1. Data Use for Improvement

2. Scalability of QI

3. Embracing a broader range of methodologies to support rigourous QI

1. Data Use for Improvement

Data Availability, including AI and other emerging technology opportunities

- Danish system has rich clinical registries (public), used to guide national QI initiatives
- "Data needs to be liberated" -- opportunity to link with electronic medical record and other databases (local, regional, national), for QI, rapid evaluation, to guide policy
- Still insufficient evidence around emerging technologies and cost-effectiveness. New research methods needed.

Data Integrity & Rigour

- "We need to avoid bluntly aggregating data sets, as race-related outcomes can be lost through aggregation. The population becomes a homogenous group, and we lose the potential for learning how to support the groups with poorer outcomes"
- "Use solid data and replicable methods to assess change" -- rigour in methodology and reporting

2. Scalability of QI

One of the challenges of rigourous QI is scale

- And leaving out essential elements of QI intervention at scale (e.g., EPOCH trial)

"Think big, start small." -Kedar Mate's keynote

- Start small and deliberately, but keep sight of large-scale opportunities and "blue sky" goals
- Importance of both types of thinking (small and big) AND the transition from small to big
- "Once you have the support....give yourself time to be prepared....Take your time and don't be pressured to make progress more quickly than you are ready for" – doing so can compromise important aspects of the work

Share methods and best practices for QI and QI research, including via publication or other dissemination venues

3. Embracing a broader range of methodologies to support rigourous QI (1 of 2)

Collaborate across disciplines

- Opportunity for QI researchers & practitioners to partner with health economists (or similar) when making cost predictions.
  - Example: "Decreased length of stay might free up beds for other paying patients, but it also increases turnover and might increase pressure on staff."
- "Why can't we acknowledge that other fields have much for us to learn and have those experts in the room?"
- AI and emerging technologies
- "Implementation science and improvement science go hand in hand"
- Learn from graphic design to communicate results effectively

Expand study designs for QI research

- Better account for bias, counterfactuals, comparison groups
- "Randomised controlled trials are possible in medical education. Both quantitative and qualitative techniques are necessary"

3. Embracing a broader range of methodologies to support rigourous QI (2 of 2)

Balancing QI in practice

- Is QI an academic or a vocational (e.g., sushi chef, carpenter) discipline? Are we practitioners or researchers? We can be both and our field needs both
- Practice-based learning: "Don't *just* teach improvement. Without the opportunity to practice, the skill will not be learned."
- Keeping the science and methods accessible; keeping it real for those on the ground

"Upping the rigour" while keeping the science accessible & inclusive

- Opportunity & power of QI to drive a movement for transforming health & health care
- "The science needs to keep developing to push Improvement forward. However, not at the expense of it being accessible to staff. Develop the science and avoid exclusion"
- Keep in mind: Rigor, attention to detail, sustainability, guiding structure (including potential pitfalls, questions to ask), design, context

What have we learned so far? Emerging themes

1. Data Use for Improvement

2. Scalability of QI

3. Embracing a broader range of methodologies to support rigourous QI

Where we go from here

Invitation to share key ideas remains open through end of this week!

Synthesis to follow – we'll follow up with those who participated as Learning Agents

Ideas for London next year?

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