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Learning Healthcare Systems as Natural Laboratories Overview

Learning Healthcare Systems as Natural Laboratories Action Group

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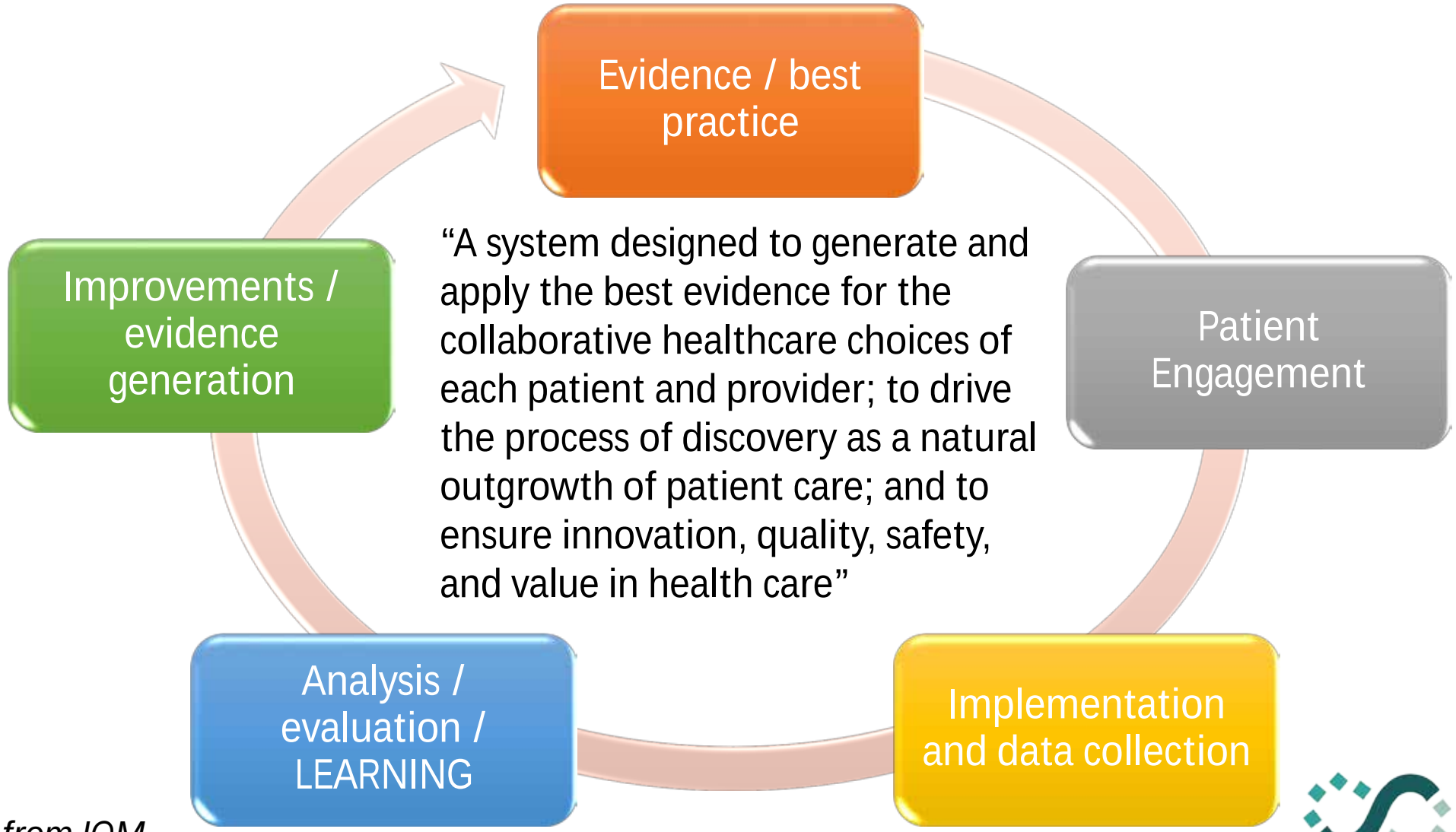
Co-facilitators

The Learning Health Care System



Adapted from IOM

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Key Characteristics of the LHCS

Science and informatics

- Real time access to knowledge
- Digital capture of the care experience
- Well-curated data infrastructure

Patient clinician relationships

- Engaged, empowered patients
- Large and well-characterized patient population

Incentives

- Incentives aligned for value
- Investment of institutional resources over long term

Culture

- Leadership-instilled culture of learning
- Supportive system competencies

Psek et al 2015

Adapted from Simon et al 2020

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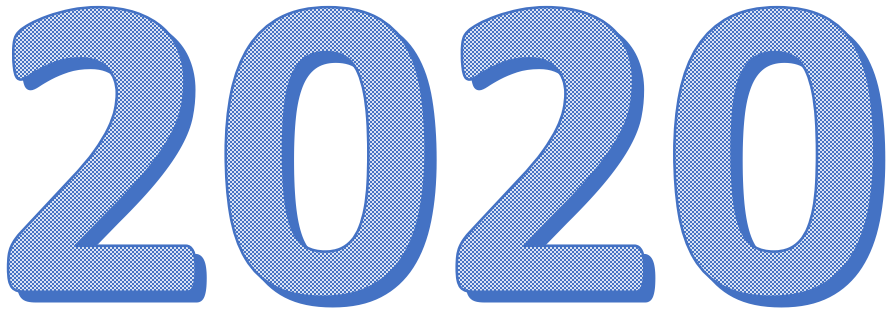
A Long Way to Go

- IOM (2010): “by 2020 90% of clinical decisions will be supported by accurate, timely, and up-to-date clinical information, and will reflect the best available evidence”



Research vs. Practice OR Practice-Based Research

RESEARCH

activity designed to test a hypothesis, permit conclusions to be drawn, and thereby to develop or contribute to generalizable knowledge

PRACTICE - PATIENT CARE

Interventions / activities designed to enhance the well being of an individual patients and populations and/or the performance of institutions

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Defining the Scope

- Defining the LHS as a natural laboratory
  - What must be in place for an effective and efficient natural laboratory?
  - How do we sustain partnerships/embeddedness?
- Facilitating the transformation of systems into LHS / Natural Laboratories
  - What is needed to continue towards the 2020 goal?
  - What is feasible and attainable in small steps? What big leaps may be required?
- Developing actionable steps to keep moving forward
  - What are some early wins that can facilitate change if disseminated?
  - How to disseminate that information?

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Example Ideas

- Toolkit or guidance for engaging leaders and matching system level priorities with evidence-based practices
- Toolkit or guidance for engaging clinicians and matching interventions and projects with clinical priorities relevant to specific health conditions
- Develop metrics and dissemination avenues for learnings internally and externally
- Guidance on utilizing the LHS – education or engagement for clinicians and leaders to experience the LHS process and gain practical knowledge over time to sustain/maintain engagement and develop towards deeper principles knowledge

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Learning Healthcare Systems as Natural Laboratories Recap

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Learning Healthcare Systems as Natural Laboratories

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David Chambers, Mindy Clyne NCI

LHS as Natural Laboratories

- IOM 2020 goal - *"by 2020 90% of clinical decisions will be supported by accurate, timely, and up-to-date clinical information, and will reflect the best available evidence"*
  - Making progress but a long way to go - variation in application/progression
  - Barriers at external, system, clinician, and patient level

- Interdisciplinary / Team focus:
  - Infrastructure may exist but not meaningful operationalization of it
  - Not all systems are integrated – how can other organizations apply LHCS principles
  - Lack of shared language, goals, and priorities

- Resourcing and incentivizing a LHCS
  - Monetary investment and shift in organizational culture required
  - Shift in research culture and funding required
  - What is the business case for transforming to a LHCS and embedding research/learning in different contexts (integrated systems, FQHCs)?

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Major Ideas from Discussion

- **LHCS is a continuum; a process rather than destination**
  - Defining key features of a LHCS, the process and progress of different organizations evolving toward the LHCS vision, describing examples, identifying challenges and solutions
  - Explore how the concept can be operationalized in non-integrated systems, low resource delivery systems, other settings
  - Synthesizing unintended consequences and identifying potential solutions LHCSs in action (e.g., too much data, strained resources)

Major Ideas from Discussion

- **Implementation Science offers tools to facilitate and operationalize LHCS activities**
  - Invite system leaders from “advanced” LHCSs for panel at ISC3 to discuss experience, understanding, process, and goals for LHCS transformation and application of embedded research to improve patient care/system performance
  - Guidance for how IS can work in collaboration with QI, systems engineering and other approaches already integral to clinical care in delivery systems
    - “how to” for system leaders to use the tools IS offers
    - Guidance for how IS augments these other approaches rather than being just another variation or label for them
  - Guidance / Assistance using IS tools in organizational prioritization/strategic planning
    - Tools from IS can provide strategies to prioritize clinical problems in context
    - Tools and learnings from IS can provide guidance on what is likely to work (or not) in the system to address priority problem

Major Ideas from Discussion

- **Bidirectional communication and true partnerships**
  - Develop training/program to facilitate engagement of clinicians and system leaders with researchers AND researchers with clinicians and system leaders
    - Two-way listening and learning, win-win situations
    - Examples of successful partnerships leading to both local innovation/care improvement and contributions to scientific knowledge

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Additional Ideas to Explore in Day Two

- Dissemination of learnings
  - Locally: How can IS / researchers help LHCS get unstuck or out of the continuous pilot phase
    - Facilitating better evaluation and dissemination / scale up of successful ideas
    - Moving on / de-implementation of ideas that didn't work
  - Broadly: Moving beyond the bookshelf (researchers) – tools for disseminating learnings (QI) to other organizations with own contexts and resources that other organizations can actually learn from and apply locally rather than starting anew
- Provide examples for importance of champions (clinical and operational) and how they contribute to research and move research to practice
- Building the business case for LHS and embedded researchers (whether employed by the system or in partnership with system)

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