



Supporting Rapid-Learning Health Systems

NMRC Awards Ceremony and Research Symposium 2021 **'Transforming' Healthcare Track**

[John N. Lavis](#), MD PhD, [Co-lead, RISE](#)

Co-lead, COVID-19 Evidence Network to support Decision-making (COVID-END)

Co-lead, Global Commission on Evidence to Address Societal Challenges

Tier 1 Canada Research Chair in Evidence-Informed Health Systems

Director, McMaster Health Forum

Director, WHO Collaborating Center for Evidence-Informed Policy

Professor, Department of Health Research Methods, Evidence and Impact, McMaster University

Adjunct Visiting Professor, Africa Centre for Evidence



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Objectives

1. To provide context for the progress and challenges in creating rapid-learning health systems in one jurisdiction (and encourage you to draw parallels to Singapore)
2. To improve understanding about how data analytics, primary and synthesized research evidence, and systematically elicited citizen values and stakeholder insights can clarify health-system challenges, frame options for improvement, support the implementation of chosen options, and drive monitoring and evaluation, both independently and as part of **rapid learning and improvement** cycles (and encourage you to draw parallels to how your potentially high-impact research can fit in)

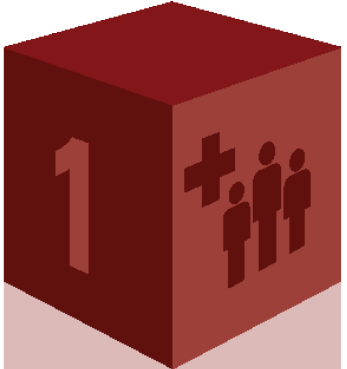
Progress

- Ontario Health Teams (OHTs) are a **new way of organizing and delivering care** that involves all health providers (including home and community care providers, primary-care providers, and hospitals, among others) working together in one coordinated team to achieve the **quadruple aim** of improving care experiences and health outcomes, at manageable per capita costs, and with positive provider experiences
- As OHTs develop and mature, they will become **clinically and fiscally accountable** for delivering a full and coordinated continuum of care to an attributed population (ranging in size from 50,000 to 870,000)
- OHTs may one day be seen to be as **landmark** a development in Ontario's health system as the introduction of universal coverage for hospital-based and physician-provided care
 - To make it landmark, we need to transition from pilot projects to ensuring that **every step is a step towards full scale**

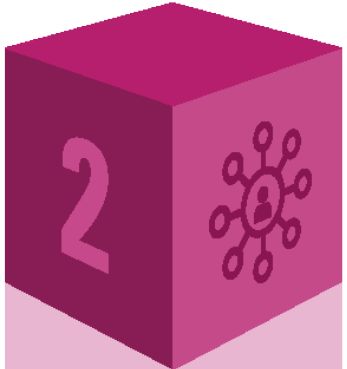
Challenges

- Using a ‘clinical’ [population-health management](#) approach to ‘move the needle’ on quadruple-aim metrics for OHTs’ [priority populations](#), as a key first step in laying the groundwork for ‘curve 2’ work related to moving the needle for their entire attributed population, and as a complement to ongoing work on ‘curve 1’ (reactive individualized care) and to future work on ‘curve 3’ (population-based strategies)
- Putting in place the [eight OHT building blocks](#), with the greatest attention currently being given to
 - [Patient partnership](#) (#3)
 - [Data analytics](#) & digital tools (#5)
 - [Collaborative governance](#), incl primary care/physician leadership (#6)

OHT Building Blocks



Defined patient population
Who is covered, and what does 'covered' mean?



In-scope services
What is covered?



Patient partnership and community engagement
How are patients engaged?



Patient care and experience
How are patient experiences and outcomes measured and supported?



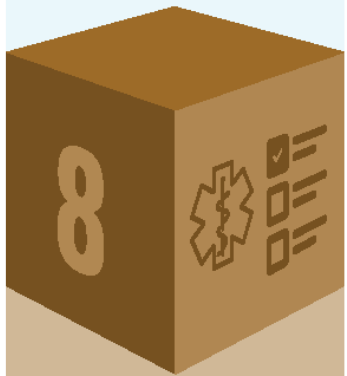
Digital health
How are data and digital solutions harnessed?



Leadership, accountability and governance
How are governance and delivery arrangements aligned, and how are providers engaged?



Funding and incentive structure
How are financial arrangements aligned?



Performance measurement, quality improvement, and continuous learning
How is rapid learning and improvement supported?

More on Population-Health Management (and BBs)

- Accountable for equitably ‘moving the needle’ on quadruple-aim metrics (especially care experiences and health outcomes) for an attributed population
 - Accountable for the ‘denominator’ (not just the ‘numerator’ – those who happen to walk through the door)
- Services are built around clients’ needs, with their primary-care provider front and centre, and with many other partners providing broader health and human services in an integrated way
 - Services increase as health and social needs increase, and clients don’t have to find them on their own or worry about which organizations deliver what services (and they may all be delivered in a central hub, but co-location is not mandatory)
- Services are co-designed with patient, family and caregiver partners, and these partners are meaningfully involved in all levels of the OHT (e.g., Collaboration Council, priority population working groups, and patient, family and caregiver council)

More on Population-Health Management (2)

- Four critical steps in improving care experiences and health outcomes
 - Segmenting population into groups with shared health and social needs and shared barriers to accessing care (using the Kaiser risk pyramid or equivalent)
 - Co-designing care models, in-reach services ('now that you're here.... can we offer these additional free, evidence-based services?') and out-reach services ('we haven't heard from you in a while.... can we help?') for each population segment
 - Implementing the models and services in ways that equitably reach and benefit all those who need them ('mass customization at scale')
 - Monitoring reach and other process measures and evaluating quadruple-aim metrics
- Supported by
 - Near-real time, longitudinally linked, cross-sectoral client records that provide the data analytics needed to support rapid learning and improvement in care, as well as the digital solutions required to deliver and improve care
 - Collaborative governance with a strong primary-care foundation
 - Integrated funding envelope with funding flowing to partners based on contributions
 - Infrastructure for rapid learning & improvement (e.g., RISE)

More on Population-Health Management (3)

- What PHM is not
 - New jargon to be ‘slapped on’ existing ways of doing things
 - Yet another pilot project
 - Service-specific quality improvement
- Aiming for the end-state of a set of rapid-learning local health systems that provide mass customization of services at scale to equitably move the needle on quadruple-aim metrics for an entire attributed population

Learning Objectives

1. To provide context for the **progress and challenges** in creating rapid-learning health systems in one jurisdiction (and encourage you to draw parallels to Singapore)
2. To improve understanding about how data analytics, primary and synthesized research evidence, and systematically elicited citizen values and stakeholder insights can clarify health-system challenges, frame options for improvement, support the implementation of chosen options, and drive monitoring and evaluation, both independently and as part of rapid learning and improvement cycles (and encourage you to draw parallels to how your potentially high-impact research can fit in)

Example of RISE

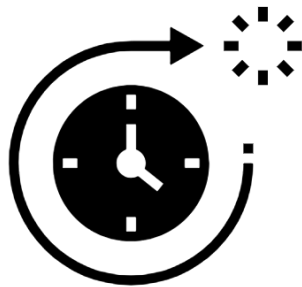
- As part of the [ministry's OHT Central Program of Supports](#), and inspired by the platforms that supported the development and maturation of accountable-care organizations in the U.S., [RISE](#) provides evidence-based support to OHTs, using a 'rapid learning and improvement' lens
- RISE's [vision](#) is local rapid-learning health systems that continually 'up their game' in achieving the quadruple aim
- RISE's [mission](#) is to provide timely and responsive access to Ontario-based 'rapid-learning and improvement' assets
- RISE's program objectives
 - Support [rapid learning and improvement](#) among OHTs (through coaching, collaboratives, and communities of practice)
 - Deliver '[on demand](#)' a suite of activities and [products](#) for OHTs (e.g., RISE jamborees, briefs and rapid syntheses, as well as citizen panels and stakeholder dialogues)
 - Share [tools and resources](#) with OHTs (e.g., 'one-stop' website, webinars, newsletters, Twitter)

Six Steps in Rapid Learning and Improvement

- Identifying a problem (or goal) through an internal and external review (e.g., sub-optimal care for a key population segment)
 - Assisted by data analytics
 - Informed by primary research
- Co-designing a solution based on data and evidence generated locally and elsewhere (e.g., care pathways and in-reach & out-reach services)
 - Informed by synthesized research evidence and by systematically elicited citizen values and stakeholder insights, as well as by primary research
- Implementing the plan (possibly in pilot and control settings)
- Monitoring and evaluating to identify what does and does not work
 - Assisted by data analytics and by primary research
- Adjusting, with continuous improvement based on what was learned from the evaluation (and from other OHTs' evaluations)
- Disseminating the results to improve the coverage of effective solutions across the health system



Three Categories of Supports



Dynamic response

(tried and tested with the McMaster Health Forum, EVIPNet, and COVID-END)

Provide demand-driven, locally contextualized 'best evidence' and systematically elicited citizen values & stakeholder insights in 3-90 business days (e.g., rapid syntheses, citizen panels & stakeholder dialogues)



Structural reform

(no big wins yet, but we're just ramping up)

Institutionalize the use of synthesized research evidence as an input to commissions and to robust citizen- & stakeholder-engagement processes, and require the justification of recommendations based on research evidence (vs GOBSATT)



Implementation support

(so far, so good with Rapid-Improvement Support and Exchange, or RISE)

Provide evidence-based technical assistance for 'rapid learning and improvement' in the implementation of system-wide transformations (e.g., coaching & collaboratives, 'jamborees' & briefs, webinars & website)



McMaster Health Forum's Lessons Learned (& Methods)

1. Be clear about the goal
2. **Learn and use a systematic approach to analyzing priority issues**
→ **Workshops for policymakers**
3. Look for the right types of research evidence
4. **Look in the right places for research evidence** → **HSE & SSE**
5. **Package the best available evidence in right format / on right timeline** → **Rapid syntheses (and 'Finding & using' resource)**
6. Use research evidence as the jumping-off point for **citizen deliberations** → **Citizen panels informed by a citizen brief**
7. Use research evidence and citizen values as the jumping-off point for **stakeholder deliberations** → **Stakeholder dialogues informed by an evidence brief and citizen values (from citizen panels)**
8. Use the resulting story – evidence, values & insights – to drive change
9. Make it the norm to use these types of inputs to drive change
10. Evaluate innovations in 2-9 and make adjustments as needed

COVID-END Domestic Work

- Requests and completed products → 86 products to date
 - New or updated syntheses
 - Rapid evidence profiles & syntheses – e.g., care models for post-COVID conditions
 - Plain language summaries (includes summaries for living documents)
 - Living evidence syntheses
 - Living evidence profiles – e.g., vaccine roll-out
 - Living evidence syntheses – e.g., vaccine effectiveness against variants
 - Living behavioural sciences documents – e.g., vaccine uptake among citizens (and now 5-12)
 - **COVID-END inventory of 'best evidence syntheses'** → 11,000+ syntheses from high-quality/high-yield sources → 8,300+ non-duplicate syntheses → 5,600+ decision-relevant syntheses → **607** 'best' evidence syntheses (and soon available in a fully searchable online database)
- Evidence-demand coordination → intake, domestic/global inventory check, WhatsApp & call
- Horizon scanning → monthly domestic and global reports
- Evidence-supply coordination
 - 40+ evidence-synthesis teams
 - **Canadian spotlights (new domestic products, new global inventory additions, and new horizon scan)**
 - Dissemination network – e.g., included weekly emails sent to all Canadian governments)
- Citizen engagement – 20+ citizens on call to contribute to evidence products

A Few Take-Home Messages

1. Think about how you can contribute – with your research – to progress, and address challenges, in creating rapid-learning regional health systems in Singapore
2. Think about how you can contribute – with data analytics, primary and synthesized research evidence, and systematically elicited citizen values and stakeholder insights, as well as primary research – to clarifying health-system challenges, framing options for improvement, supporting the implementation of chosen options, and driving monitoring and evaluation, both independently and as part of rapid learning and improvement cycles
3. Think about whether there are new research innovations that you want to add to your ‘toolbox,’ such as rapid syntheses, living evidence syntheses and guidelines, citizen panels, and stakeholder dialogues, and be sure to leverage the right one-stop shops (like HSE and COVID-END inventory)