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Rapid-Improvement Support and Exchange

HSPN Health System Performance Network

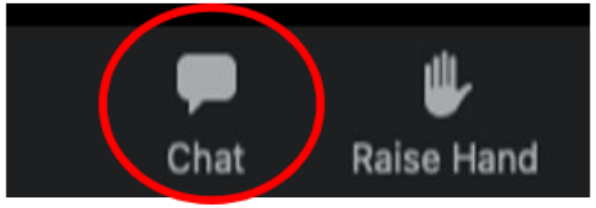
What is a Learning Health System?

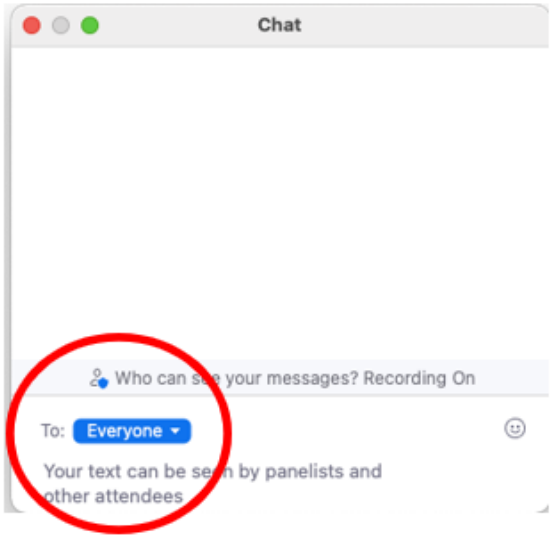
HSPN Monthly Webinar co-hosted by RISE and HSPN

April 23, 2024

Welcome & thank you for joining us!

Please let us know who you are by introducing yourself (name & OHT or other org)





➢Open Chat

➢Set response to everyone in the chat box

Land Acknowledgement

We wish to acknowledge this land on which the University of Toronto operates. For thousands of years it has been the traditional land of the Huron-Wendat, the Seneca, and the Mississaugas of the Credit. Today, this meeting place is still the home to many Indigenous people from across Turtle Island and we are grateful to have the opportunity to work on this land.

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HSPN Health System Performance Network

Today's event
What is a Learning Health System

Host

Walter Wodchis
Principal Investigator
HSPN

Presenters

John Lavis
Co-Lead RISE

Maureen Smith
Patient Partner

Rob Reid
Co-Lead RISE

Kelly Smith
Chair in Patient-Oriented Research

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Pico Version of the Nano Course on Enabling Learning Health Systems

23 April 2024

Your hosts

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- Maureen Smith, a citizen leader
- Rob Reid, a system and organization leader and ‘embedded’ research leader
- John Lavis, a research leader

Objectives

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1. **Demystifying the idea of a learning health system from the perspective of government policymakers, system and organizational leaders, professional leaders and citizen leaders**
2. Moving beyond data analytics being the single driver of learning and improvement to capitalize on recent innovations that can bring multiple forms of evidence and ‘business intelligence’ to bear in ultra-short timelines
3. Moving from researcher-led efforts to a 'three-legged stool' supported by policy, system and professional leaders, citizen or patient partners, and researchers
4. Moving from pilot projects to making this the 'new normal' in health systems

Format for each objective

- One or two questions
- Brief presentation
- Rapid-fire comments and questions

Objective 1 related questions

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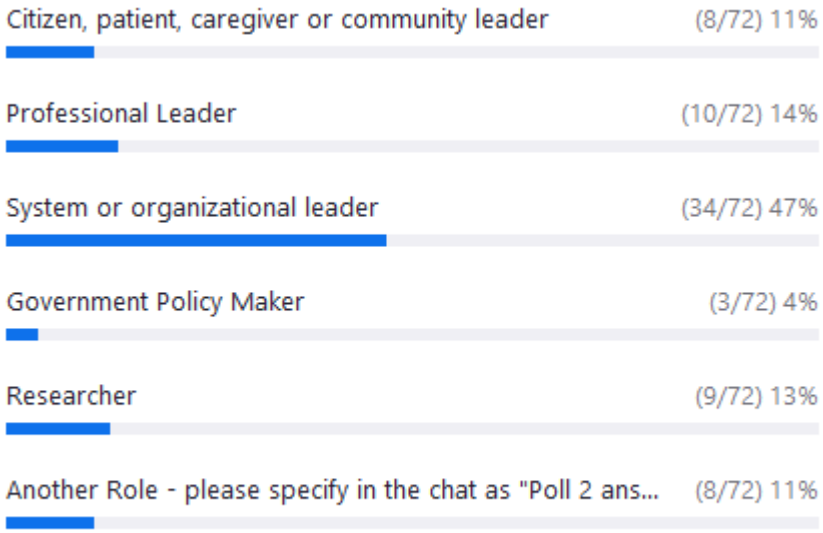
1. What role do you primarily play, or could you primarily play, in a learning health system? [select one option]



2. What does a ‘learning health system’ mean to you (in ten words or less)?

Learning health system action framework
(we'll focus on the gears, but there are also fuel and accelerants, and moderators and breaks)

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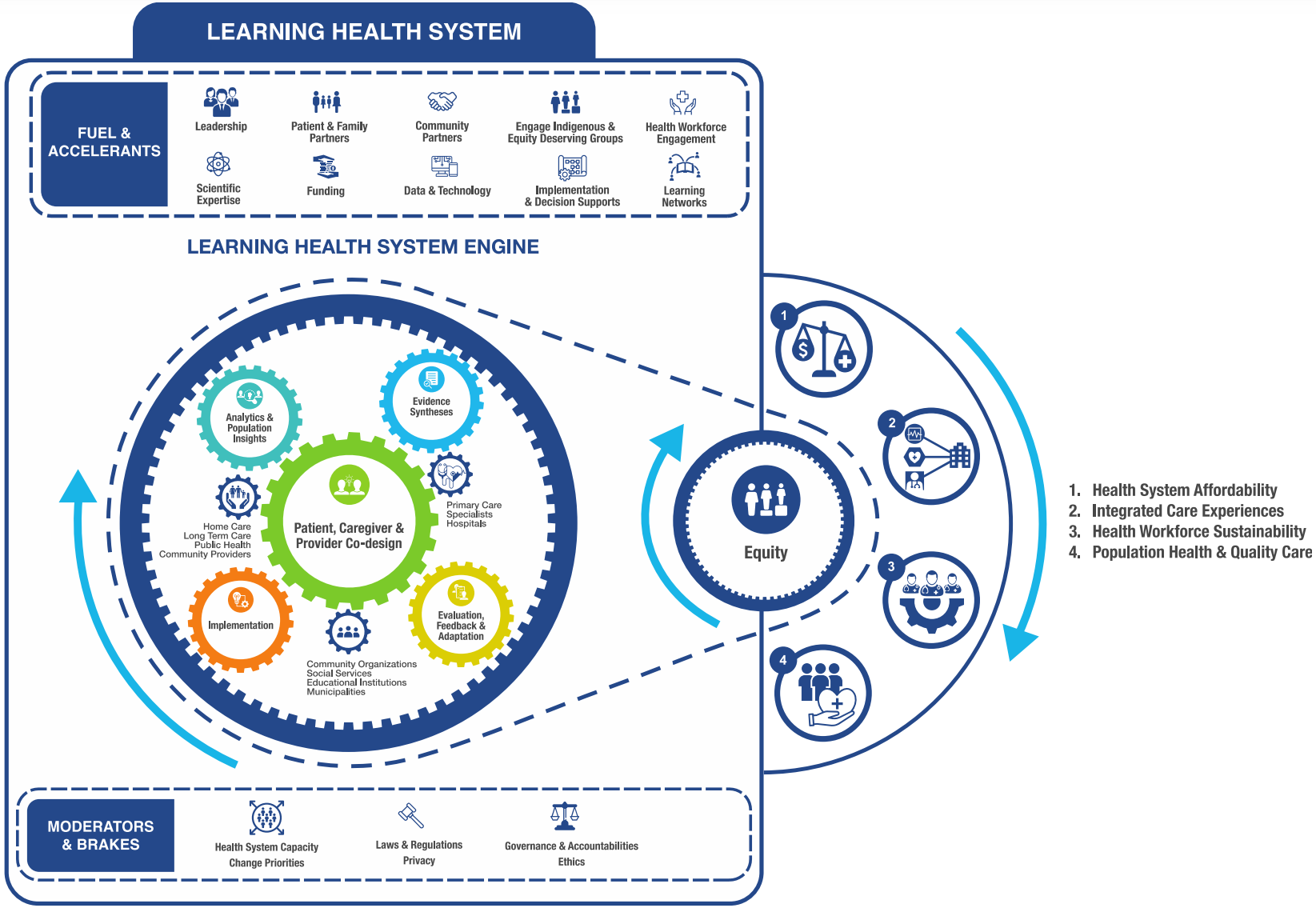

1. Health System Affordability
2. Integrated Care Experiences
3. Health Workforce Sustainability
4. Population Health & Quality Care

Source: Reid RJ, Wodchis WP, Kuluski K, Lee-Foon N, Lavis JN, Rosella LC, Desveaux L. Actioning the learning health system: An applied framework for integrating research into health systems. Social Science & Medicine; 2024.

Five ‘gears’ involved in learning and improvement cycles

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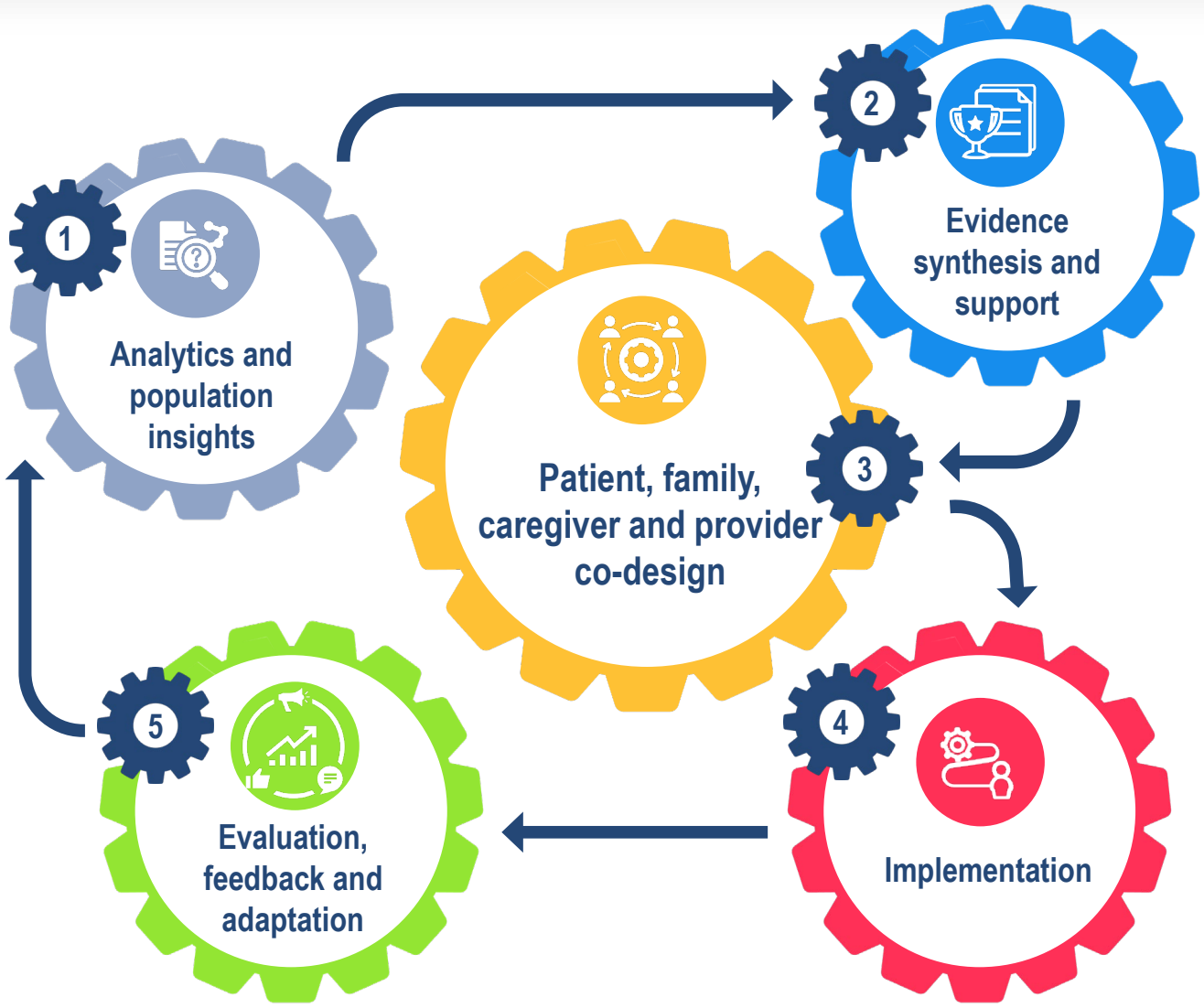

Source: Reid RJ, Wodchis WP, Kuluski K, Lee-Foon N, Lavis JN, Rosella LC, Desveaux L. Actioning the learning health system: An applied framework for integrating research into health systems. Social Science & Medicine; 2024.

Gear #1: Analytics and population insight

Description: Using comprehensive data (quantitative and qualitative) and advanced analytic approaches on populations served to understand health service needs, gaps, inequities, preferences and aspirations

Sample questions: Where are system gaps and what's driving them? Where are the inequities? What priorities are we addressing (or what problems are we solving)? What are patient, caregiver and community preferences and aspirations?

Health-system affinities: Business intelligence functions, data decision and analytics supports, program planning groups, clinical informatics, patient/client and family advisory councils, etc.

Gear #2: Evidence synthesis and support

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Description: Rapid syntheses of existing evidence to understand the success or failure of solutions to similar problems tested elsewhere as well as barriers and facilitators

Sample questions: What has worked and not worked elsewhere? What are key components versus adaptable periphery? What conditions are key, including contextual issues? What barriers need to be addressed?

Health-system affinities: Health-system librarians, clinical guideline development teams, provincial and federal evidence-synthesis supports, Alliance for Living Evidence, Cochrane, Campbell Collaboration, SPOR Evidence Alliance, etc.

Gear #3: Patient, family, caregiver and provider co-design

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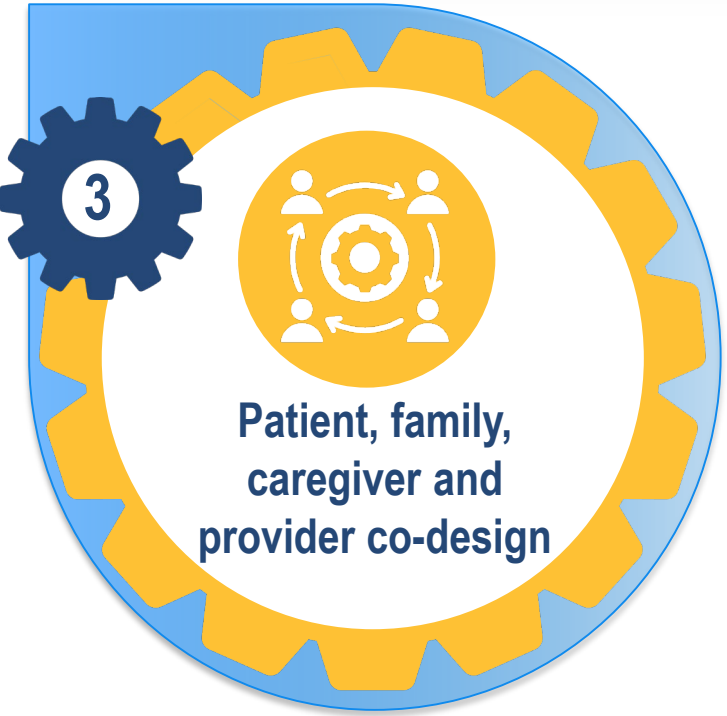

Description: Direct engagement and co-design with patients / clients, caregivers / families, care providers and community members impacted by the health problem alongside those who can move co-designed services towards successful implementation

Sample questions: What are user-centred design conditions (patients, caregivers, community members, providers)? What design considerations are most important? How can technology be used? How do requirements differ for equity-deserving groups? What are the feasibility constraints?

Health-system affinities: Innovation and user-centred design experts/teams, clinical programs/networks, health informatics programs, patient/client and family councils, community groups, health system leaders/regulators etc.

Gateway #4: Implementation

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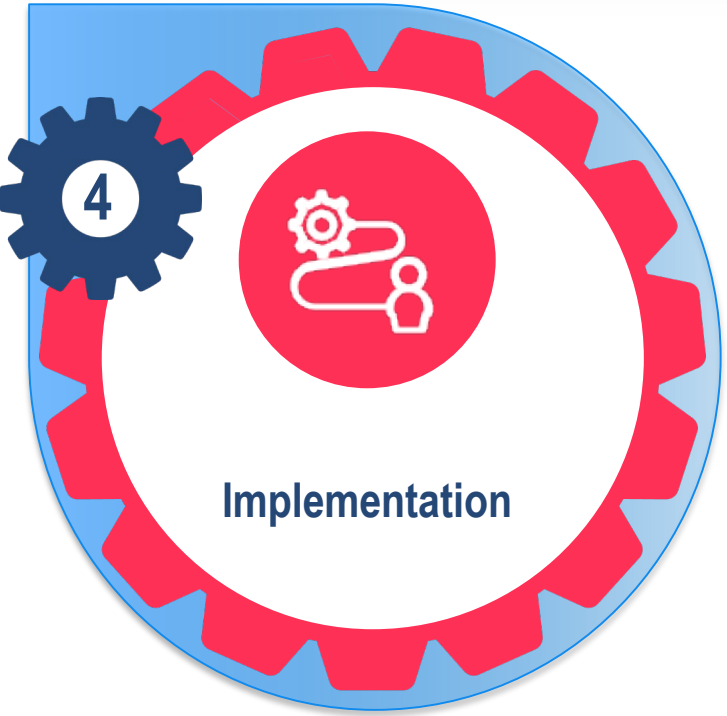

Description: Systematically converting research findings and other evidence-based practices into routine and ‘sticky’ practices that enhance the quality and impact of health services

Sample questions: How to stage implementation? What implementation/change-management methods and communication channels should be used? How can behavioural motivation be built? How to best train people for new work, or new ways of receiving care?

Health-system affinities: Quality-improvement teams, Lean/Six Sigma leaders, project-management teams, health informatics, change-management trainings etc.

Gear #5: Evaluation, feedback and adaptation

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Description: Using realist evaluation methods to measure how well a multi-component intervention is working on a population and under what conditions. Constant feedback via intervention data is used to adapt the intervention to match patient/client needs

Sample questions: What evaluation logic model should be used? Are change processes being cemented? What degree of 'reach' across equity-deserving groups? Are hypothesized outputs/early outcomes being achieved? Are there unintended consequences? What adaptations are needed to cement and scale?

Health-system affinities: Quality-improvement teams, performance management, business intelligence/decision support/evaluation teams, clinical informatics, etc.

Comments and questions?

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1. Demystifying the idea of a learning health system from the perspective of government policymakers, system and organizational leaders, professional leaders and citizen leaders

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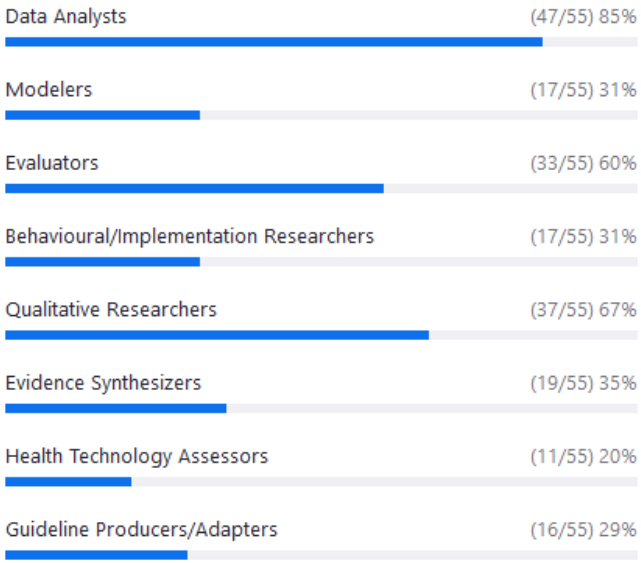
Objective 2 related questions

1. What kind of evidence-related ‘trades’ are you most familiar with? [select as many as apply]



2. Do you know an evidence-focused ‘general contractor’ who can bring together many forms of evidence in a timely, demand-driven way?

   a) Yes
   b) No

Seven features of a learning health system

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The combination of a health system and research system that, at all levels, is

- anchored on **patients' / clients'** needs, perspectives and aspirations (1)
- driven by timely **data** (2) and **evidence** (3)
- supported by appropriate **decision** supports (4) and aligned **governance, financial and care / service delivery arrangements** (5)
- enabled with a **culture** of (6), and **competencies** for (7), rapid learning and improvement

Two actions at the heart of a learning health system

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- Use '**learning and improvement cycles**' – in all 'layers' and especially with patients / clients (1), organized around tests of change, drawing on many forms of evidence (2 & 3), and involving research | operations | patient/client and family partnerships at the many 'coalfaces'
- Make 'any change for the better' **the 'new normal'** (and not yet another pilot project) – with appropriate decision supports (4), aligned governance, financial & care/service delivery arrangements (5), and both culture (6) and competencies (7)

What is a ‘change for the better’

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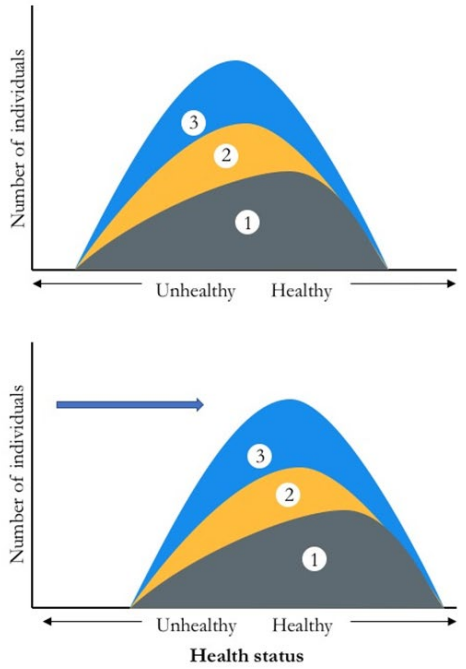
- An equity-centred improvement in a quadruple-aim metric, meaning in one or more of:
  - improving health outcomes
  - improving care experiences
  - improving provider experiences
  - keeping per-capita costs manageable

- Example of doing this with health outcomes (shifting the curve to the right and narrowing it)
  - Curve 1: reactively providing care to those who walk through the door
  - Curve 2: proactively getting the right care to all those who need it (grouped by shared needs, risks, and barriers to accessing care)
  - Curve 3: intervening on groups and populations (social determinants of health)



‘Layers’ involved in ‘learning and improving’ to achieve system goals, such as equity-centred quadruple-aim metrics

[Note that Rob has a version with circles]

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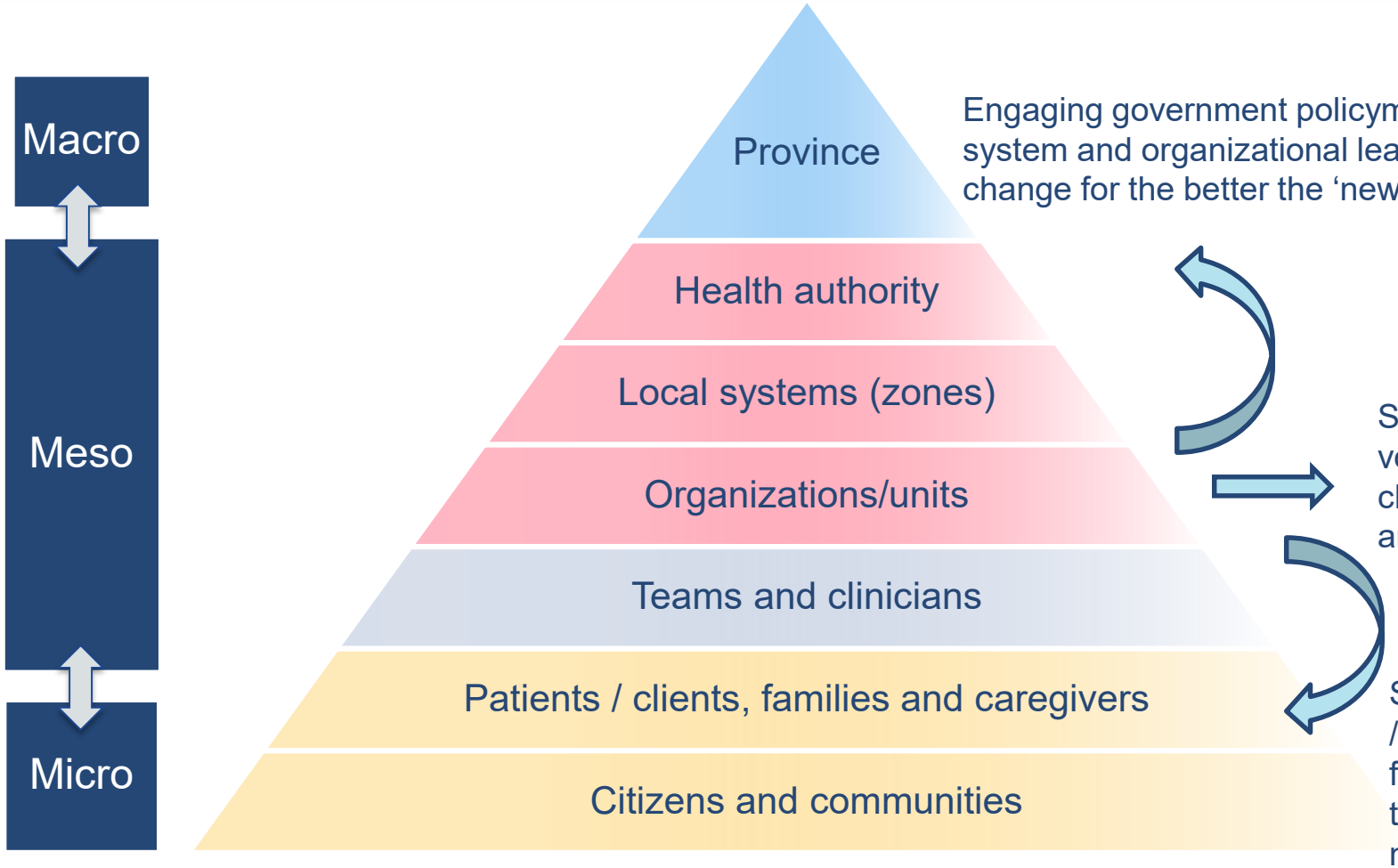

Engaging government policymakers and health-system and organizational leaders in making every change for the better the ‘new normal’

Supporting the capture of service-provider voices and service data, participating in ‘tests of change,’ and telling the stories that can make any change for the better the ‘new normal’

Supporting the capture of family voices and patient / client data, and engaging patients / clients and families in ‘tests of change’ and in telling the stories that can make any change for the better the ‘new normal’

Gears mapped to key questions and to relevant forms of evidence, both stocks of existing evidence and flows of new evidence

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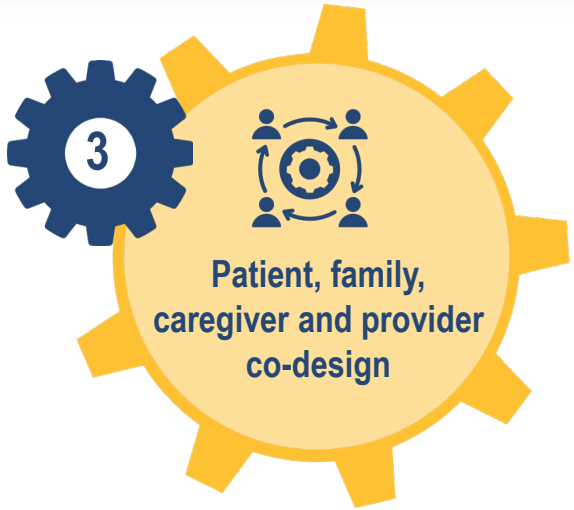
Where are system gaps & what's driving them? Where are the inequities? What priorities are we addressing (or what problems are we solving)?

Stocks of **existing** evidence:
1) Data analytics
2) Modeling
3) Qualitative insights
4) Evidence synthesis (global)



What evidence-informed solutions exist? How will solutions be adapted/designed with input from system users and communities?

Stocks of **existing** evidence:
1) Evaluation
2) Modeling
3) Qualitative insights
4) Evidence synthesis (global)
5) Possibly HTAs (or CEAs) and guidelines

Does this model work? How & for whom? What adaptions are needed to cement and scale?

Stocks of **existing** evidence:
1) Behavioural/implementation research
2) Qualitative insights
3) Evidence synthesis (global)

*Flows of **new** evidence:*
1) Data analytics
2) Evaluation

Who are the evidence ‘trades’ supporting learning and improvement cycles and making any change for the better the ‘new normal’?

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- Data analytics (and modeling)
  - Who is providing the data analytics, including about equity-centred quadriple-aim metrics? (e.g., IC/ES, INSPIRE-PHC, RISE-NOSM)
- Evaluation
  - Who is doing the rapid evaluations of ‘tests of change’?
- Behavioural / implementation research
  - Who is doing the behavioural / implementation research to address barriers to accessing care and to changing practice?
- Qualitative insights
  - Who is systematically capturing qualitative insights from patients/clients and citizens and from clinicians?
- Evidence synthesis
  - Who is providing ultra-rapid contextualized evidence syntheses? (e.g., RISE-MHF)
- Health technology assessments
  - Who is accessing reports from OTAC, CADTH, etc. or preparing their own?
- Guidelines
  - Who is sourcing, assessing and adapting OH quality standards and guidance documents or preparing their own?

Who are the learning and improvement platforms that can help make change happen ‘on the ground’ for Ontarians

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- OH-Quality
  - Audit and feedback (practice reports), quality-improvement plans, regional quality programs, community of practice (Quorum), and educational events
- RISE (to support OHTs use a population-health management to improve equity-centred quadruple-aim metrics)
  - Coaches and peer sharing & learning sessions
- Center for Effective Practice (to support clinicians make care improvements)
  - Academic detailing, and reminders & prompts (built into EMRs)
- Choosing Wisely Ontario (to reduce unnecessary tests and treatments)
  - Physician and patient education, audit and feedback, and process changes

Who is the ‘general contractor’ putting together the ingredients in timely, demand-driven, equity-sensitive evidence products and processes

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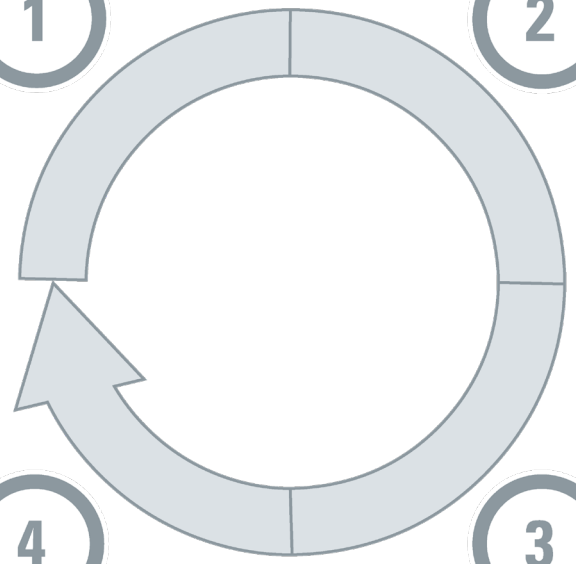
Domestic evidence

(by step in the policy cycle,
any of which could also be the focus of a contextualized evidence synthesis)



1 Understanding a problem and its causes

Forms of evidence

- Data analytics
- Modeling
- Qualitative insights

2 Selecting an option for addressing the problem

Forms of evidence

- Modeling
- Evaluation
- Qualitative insights
- Guidance
- Technology assessment / cost-effectiveness analysis

3 Identifying implementation considerations

Forms of evidence

- Behavioural/ implementation research
- Qualitative insights

4 Monitoring implementation and evaluating impacts

Forms of evidence

- Data analytics
- Evaluation
- Qualitative insights

Global evidence

(each for one or more steps in the decision-making cycle)

Evidence synthesis
(what has been learned from around the world, including how it varies by groups and contexts)

Increasingly in **game-changing living evidence syntheses** that are updated as context, issues and evidence evolve

Other types of information

(each for one or more steps in the decision-making cycle)

Jurisdictional scan
(to learn from experiences – and ideally evaluations – in other provinces & countries)

Horizon scanning
(to leverage foresight work done nationally and globally)

Key-informant interviews
(to leverage rich experiences)

Deliberative processes
(to engage citizens and stakeholders in collective problem solving)

Comments and questions?

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Objective 3 related questions

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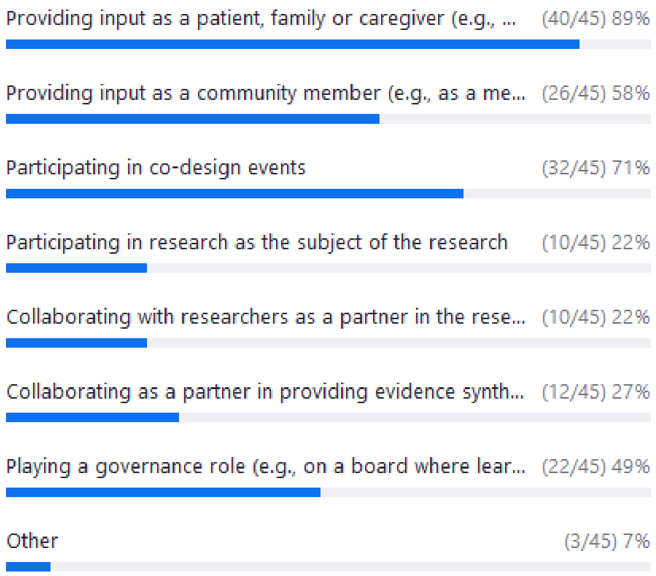
1. What has been the focus of any patient, family, caregiver or community groups with whom you've worked? [select as many as apply]



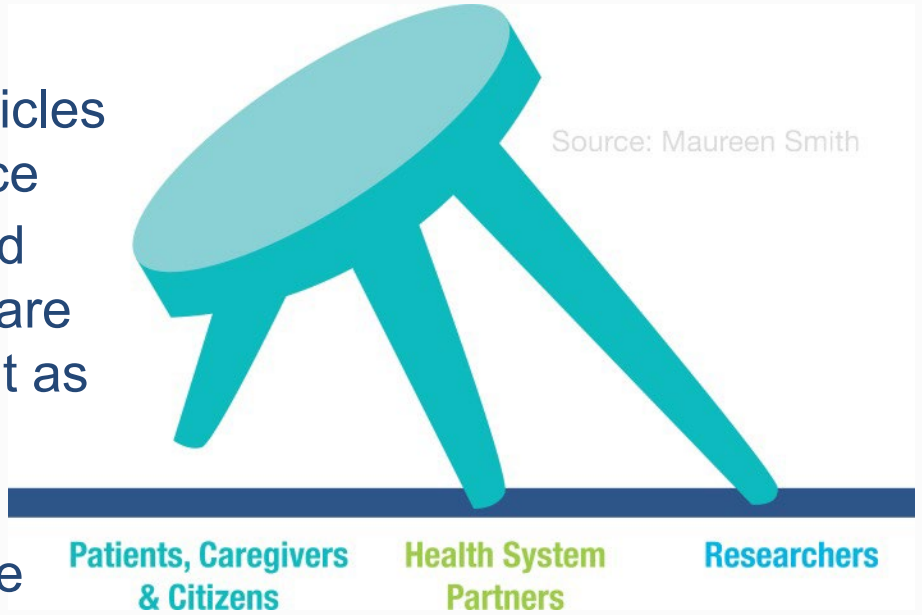
2. Who would you turn to on the care delivery side to access additional capabilities that can help to support learning and improvement cycles and making any change for the better the 'new normal'? (in 10 words or less)

Patient / client perspectives on learning health systems

- The newest buzzword!
- What does it mean in practice?
- Have we moved beyond the three legged wobbly stool?
- What does it actually mean for patient outcomes and care experiences?
- Who rotates the gears?
- How can patients / clients, caregivers, and communities be part of this system?

Patients are more than data donors

- Learning health system (LHS): Embedding research into health systems, continuously learning from data and translating findings into care / services in real time – **means much more than data donors!**
- A scoping review of LHS articles from 2016 to 2020 found articles discussing the level of patient involvement in LHS were scarce
- No common language, tools or frameworks for discussing and operationalizing LHS exist, making it likely that many healthcare institutions are using this approach without explicitly naming it as such
- Tools that exist are often not suited to engaging people and communities with diverse voices and needs, particularly those from equity deserving groups



SOURCES:
Lee-Foon NK, Smith M, Greene SM, Kuluski K, Reid RJ. Positioning patients to partner: exploring ways to better integrate patient involvement in the learning health systems. Research Involvement and Engagement. 2023;9(1):1-5.
Zurynski Y, et al Mapping the learning health system: a scoping review of current evidence. Sydney: Australian Institute of Health Innovation. 2020
Kuluski K, Guilcher SJ. Toward a person-centred learning health system: understanding value from the perspectives of patients and caregivers. Healthcare Papers. 2019;18(4):36-46.

Roles for patients (or clients), families, and communities (PCC)

Role	Challenges & Opportunities
Patient/client-partnered research	• Engagement based on CIHR grant system not suited to building sustainable engagement capacity once funding is used • PCC don't see impact of their efforts
Patient/client and family advisory councils	• Opportunity to dismantle the silos of patient/client-partnered research and quality-improvement initiatives, both vital components of a successful LHSs • Can advocate for quickly acting on analyzed findings of patient/client data collection at local level
Health Accord, Ontario Health Teams and other system-transformation initiatives	• Making strides but remains wide variety of roles for PCC and range of capacity building initiatives • Need greater communication of successes, sharing of best practices, and PCC mentoring
Institutional governance bodies	• Can be tokenistic • Meaningful engagement requires training for all involved • Change management requires culture change

Pathways to moving forward

- Communicate clearly to patients/clients, caregivers, and communities (PCC) how their feedback is used in the LHS and how data collected is used to improve patient/client care/services **with concrete examples of impact**
- Determine whether health systems have the workforce, capacity, and infrastructure to nurture continuous and impactful engagement **and set goals to support engagement**
- Increase the level and extent of PCC involvement in health system improvement activities **by learning from best practices**. PCCs want to be part of the solution!

Making the most of each stool leg, in this case at the ‘meso’ level (and recognize you may already be doing some of this!)

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Patients, families & caregivers

- Patient, family & caregiver advisory councils
- Community advisory groups
- Co-design event participants
- Patient/citizen partners in research
- Patient/citizen partners in evidence synthesis and support
- Patients/citizens in governance roles (where learning and improvement agendas are set)

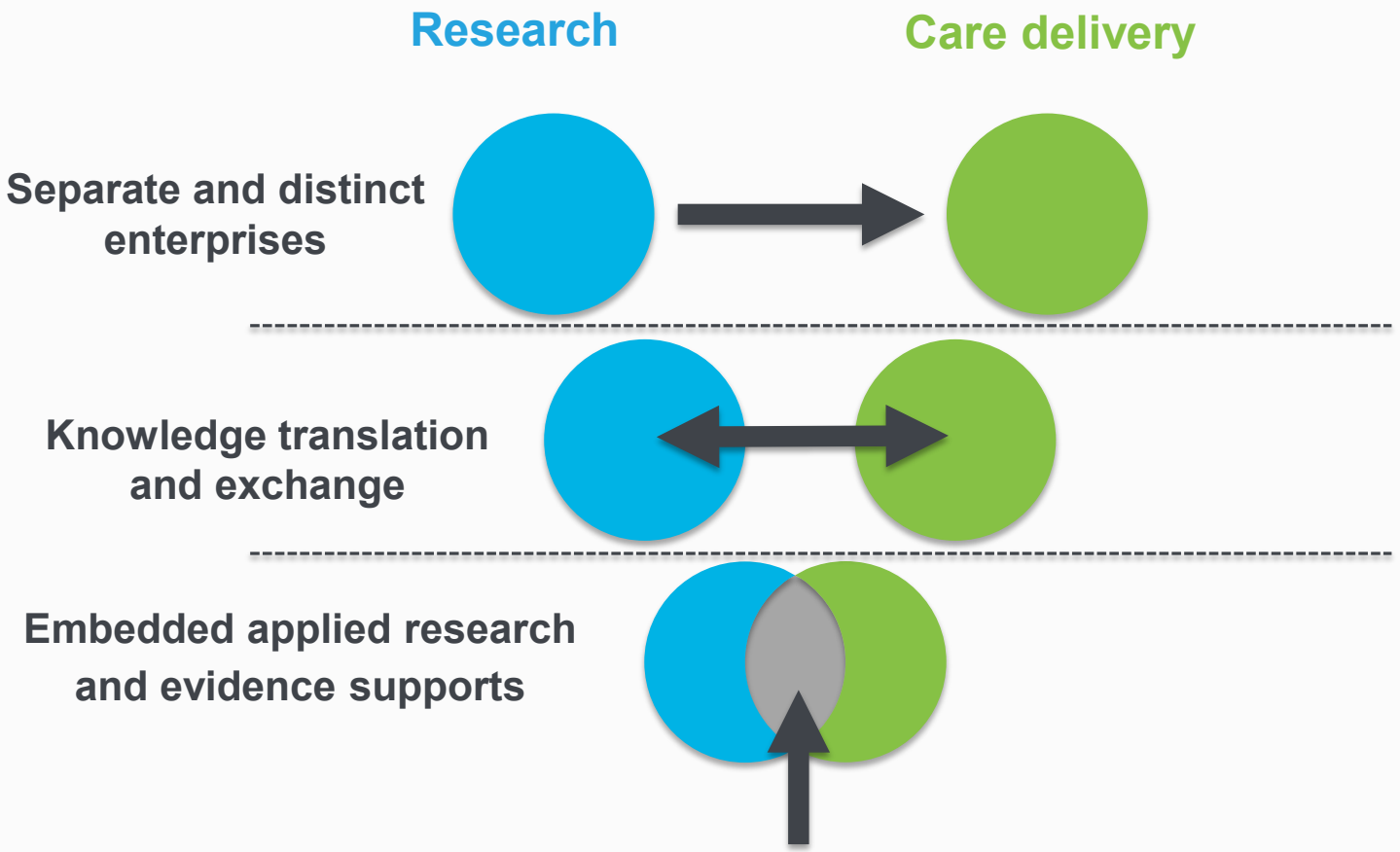
Researchers

- Each of the ‘trades’
  - Data analysts
  - Modelers
  - Evaluators
  - Behavioural / implementation researchers
  - Qualitative researchers
  - Evidence synthesizers
  - Health technology assessors
  - Guideline producers/adapters
- General contractors

Care-delivery partners

- Business-intelligence functions
- Data analytics & decision supports
- Clinical informatics
- Academic detailers
- Audit and feedback units
- Quality-improvement teams
- Lean/Six Sigma leaders
- User-centred design teams
- Project-management teams
- Program-planning groups
- Change-management experts
- Performance-management groups
- Librarians
- ‘Population knowledge keepers’

Evolution of research paradigm



Learning health systems

SOURCE: *Institute for Better Health-Trillium* Health Partners (2023)

Comments and questions?

3. Moving from researcher-led efforts to a 'three-legged stool' supported by policy, system or professional leaders, citizen or patient partners, and researchers

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Objective 4 related question

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1. Can you give an example of where you helped to turn a pilot project into the 'new normal' in a health system (in ten words or less)?

Example: Implementing integrated clinical pathways (one of seven new 'milestones')

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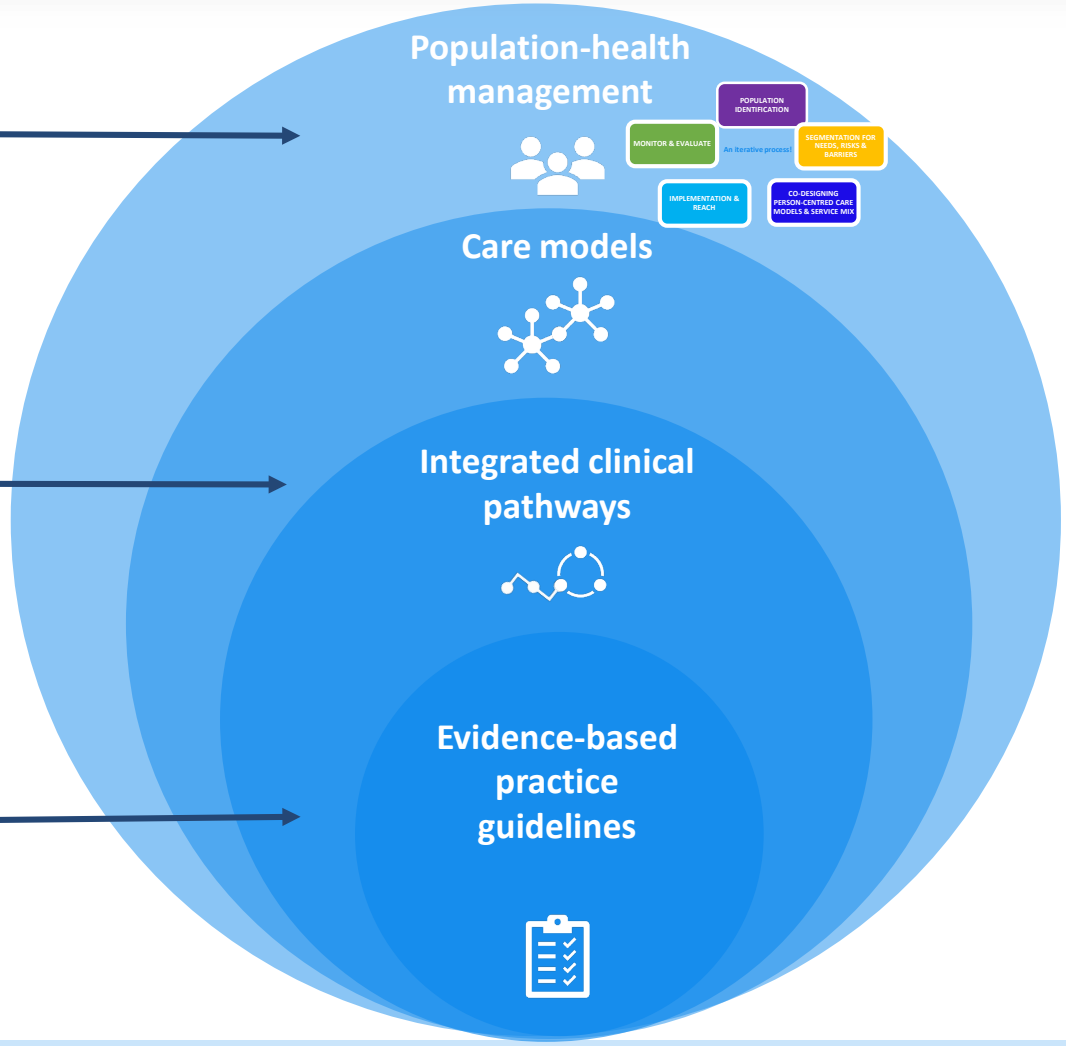
Population health management includes

1. Identifying your population
2. Segmenting based on needs, risks & barriers
3. Co-designing person-centred care models & service mix
4. Implementing, spreading and scaling
5. Monitoring & evaluating

Care models are equitable systems of care with multiple care pathways and processes inside. They are person-centred and include other components to enable integrated clinical pathways (e.g., decision support, patient self-management support) to occur for whole person care (e.g., multiple diseases)

Integrated clinical pathways are the steps taken to deliver a care process (including social care) along the entire patient journey for the duration of their condition/chronic care for a specific disease or for those with multi-morbidities. They are undergirded by evidence-based guidelines/quality standards.



Example: Implementing mixes of integrated clinical pathways based on different levels of patient need

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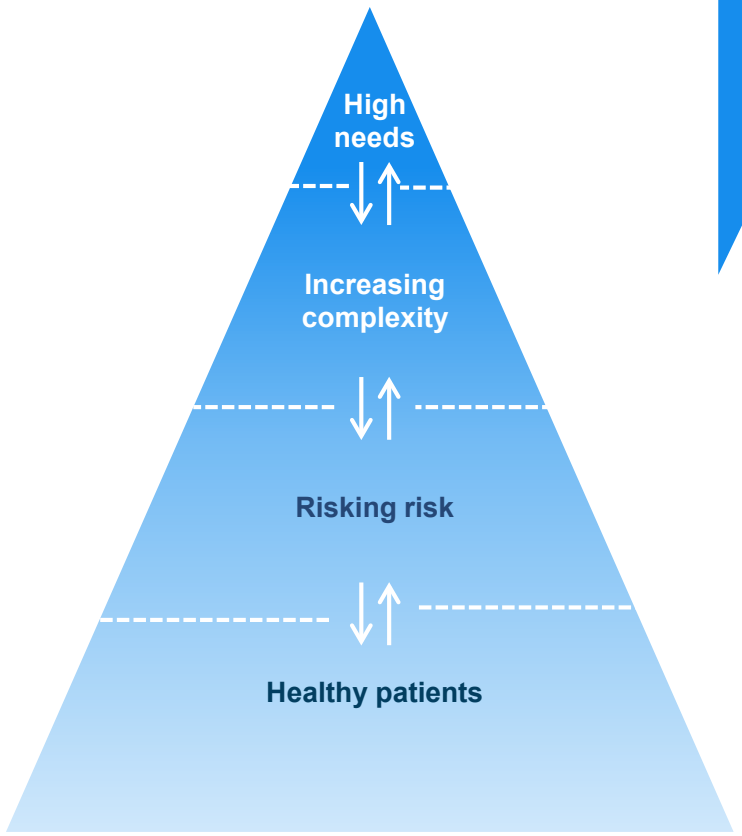

Learning and improvement cycles organized around tests of change and drawing on key OHT building blocks

- Patient partnership and community engagement
- Performance measurement, quality improvement, and continuous learning

Making the change the 'new normal' with other key OHT building blocks

- Digital health
- Leadership, accountability, and governance
- Funding and incentive structure (e.g., bundled payments)

Note that we have many materials co-developed with and for partners in the north given the unique needs of rural and remote communities

Questions related to any of our objectives?
Or any other questions for us?

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Please complete the evaluation form
(so we can learn and improve, and
make any change for the better the new normal)

HSPN Health System Performance Network

Trying to Live in a Learning Health System

Kelly Smith
Research Chair in Patient Oriented Research

April 24, 2024

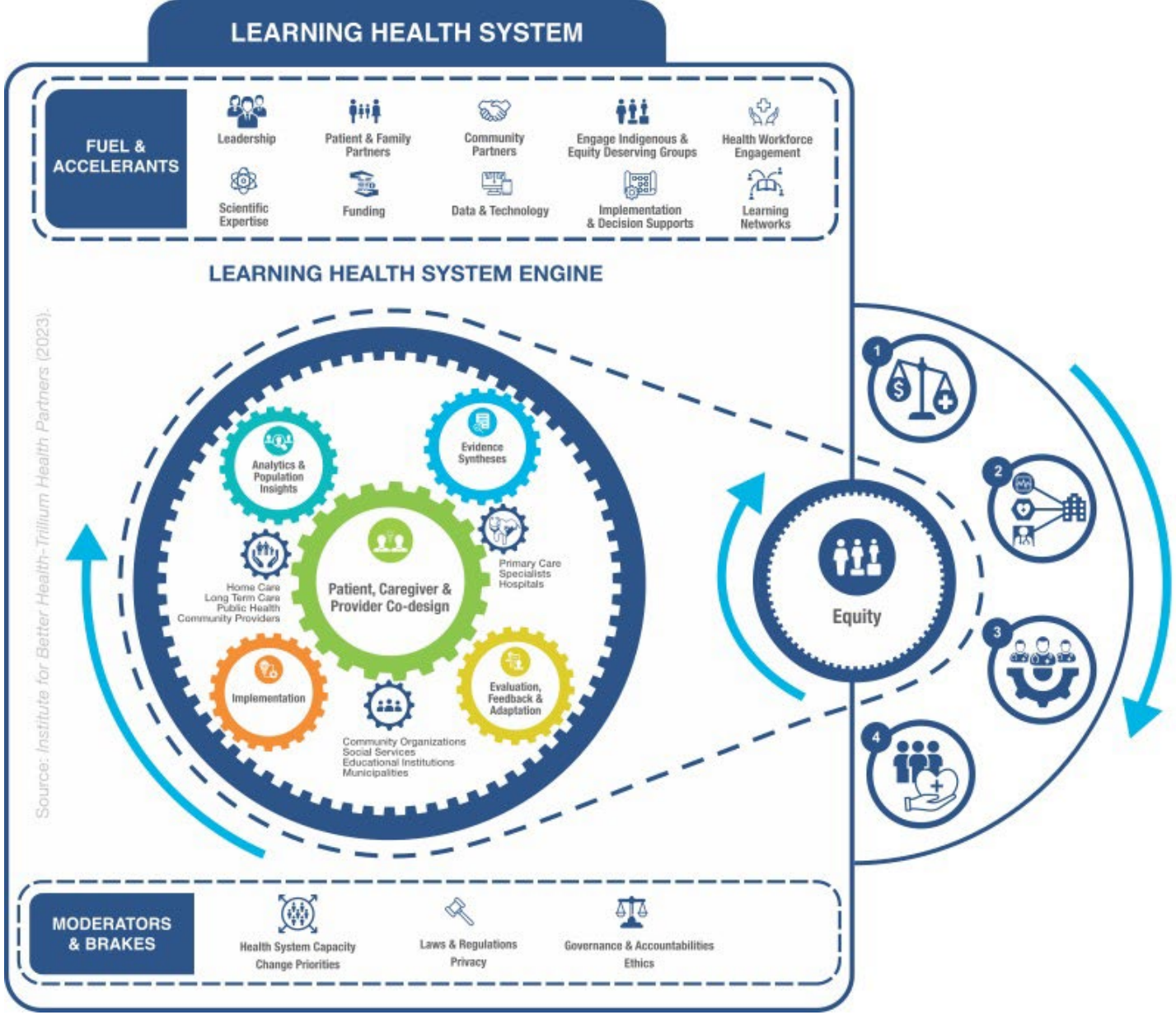
Up Next

- HSPN webinar series
  - 4th Tuesday of the Month: 12:00 – 1:30 pm

Upcoming April to October 2024:

Advancing the Learning Health System in Ontario

LEARNING HEALTH SYSTEM ACTION FRAMEWORK



1. Health System Affordability
2. Integrated Care Experiences
3. Health Workforce Sustainability
4. Population Health & Quality Care

SOURCE*: Institute for Better Health-Trillium Health Partners* (2023).

Can you share some feedback? Scan here! (or click link in chat)

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THANK YOU!

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