Lunch 'n' Learn Webinar

Learning Health Systems within the Alliance and Beyond: Past, Present, and Future

Alliance for Healthier Communities
Alliance pour des communautés en santé

Housekeeping

zoom

- Because we're a smaller group and we're hoping for a robust discussion, we'll unmute everyone towards the end of this webinar.
  - Please raise your hand and we'll call on you in turn
  - Please keep yourself muted when you're not speaking.
- Those who prefer to type their questions may use the Q&A or Chat functions to do so.
- Live **captioning is available. Use the "CC – Live Transcript"** button.
- This webinar is being recorded, and the recording will be shared.
- Please message Catherine Macdonald or Sanya Budhiraja if you need technical assistance.

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Acknowledgement of Traditional Indigenous Territories

We recognize that the work of the Alliance for Healthier Communities and Alliance members takes place across what is now called Ontario on traditional territories of the Indigenous people who have lived here since time immemorial and have deep connections to these lands. We further acknowledge that Ontario is covered by 46 treaties, agreements and land purchases, as well as unceded territories. We are grateful for the opportunity to live, meet and work on this territory.

Ontario continues to be home to vibrant, diverse Indigenous communities who have distinct and specific histories and needs, as well as constitutionally protected and treaty rights. We honour this diversity and respect the knowledge, leadership and governance frameworks within Indigenous communities. In recognition of this, we commit to building allyship relationships with First Nation, Inuit and Métis peoples in order to enhance our knowledge and appreciation of the many histories and voices within Ontario. We also commit to sharing and upholding responsibilities to all who now live on these lands, the land itself and the resources that make our lives possible.

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Panelists

- Dr. Merrick Zwarenstein
  Professor, Department of Epidemiology & Biostatistics and the Centre for Studies in Family Medicine, Western University

- Dr. Danielle M. Nash
  Post-Doctoral Research Fellow, Western University

- Lorri Zagar
  Quality Improvement Advisor

- Dr. Jennifer Rayner
  Director of Research and Evaluation, Alliance for Healthier Communities

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Session Outline

Purpose
- This is the third time we have presented on the learning health system initiative to the Alliance and each time we have incorporated feedback from the discussion into future progress.

Past
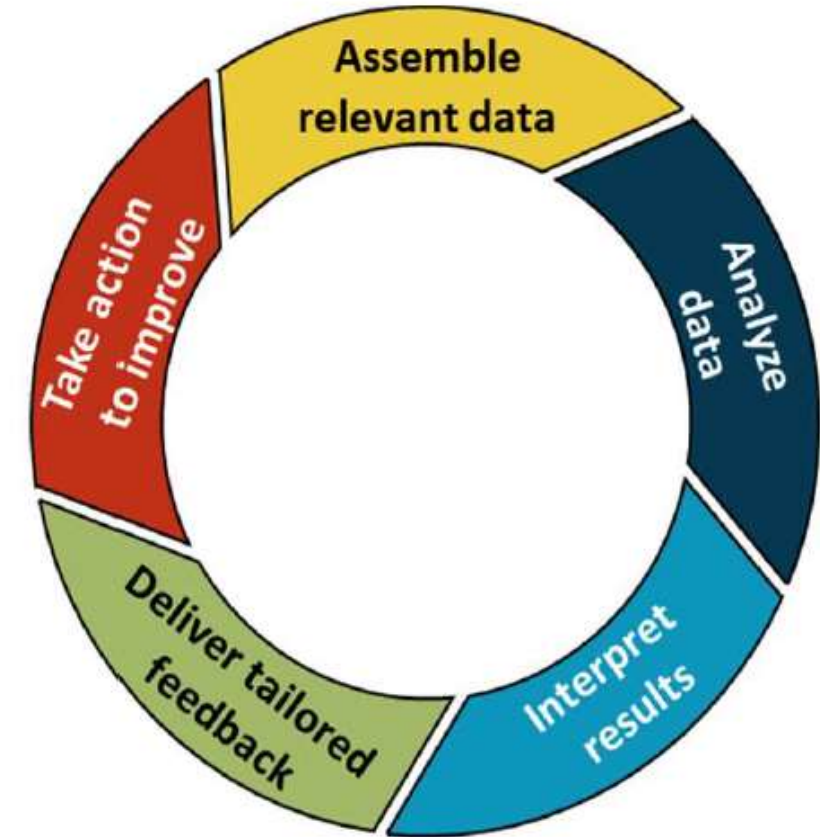- Alliance staff and providers' perspectives on the learning health system

Present
- Learning health system in action: learning collaboratives

Future
- Involvement with other learning health systems and what's next

Learning Health Systems (LHS)

- First identified by the Institute of Medicine in 2007

- An organization, system or network with a culture of health system improvement oriented to making evidence-based decisions

- Uses iterative analyses of electronic data to efficiently evaluate care processes

- More effective care processes are put into practice and re-evaluated in cycles of learning and improvement

The Past

Alliance staff and providers' perspectives on LHS

LHS in Primary Care

- Lack of literature describing LHS in primary care

- Unique considerations for primary care:
    - First point of contact
    - Broad scope of care
    - Preventative care
    - Spans life course

- Completed scoping review
    - Mostly integrated health systems in the US

Nash et al. BMC Fam Pract   (2021) 22:126
https://doi.org/10.1186/s12875-021-01483-z

BMC Family Practice

RESEARCH   **Open Access**

Learning health systems in primary care: a systematic scoping review

Danielle M. Nash[1,2*], Zohra Bhimani[3], Jennifer Rayner[4,5] and Merrick Zwarenstein[1,4,6]

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The Alliance LHS

- Launched October 2020

- Initiatives included:
  - Equity, Performance, Improvement, and Change (EPIC) committee
  - EPIC newsletter
  - Communities of practice
  - Learning collaboratives*
  - Practice-Based Learning Network (PBLN)*

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Alliance Staff and Providers' Perspectives on LHS

- Interviewed Alliance stakeholders before the official launch of the LHS

- **Objective:** to provide guidance to the Alliance on strengths and areas for improvement as they developed their LHS

ORIGINAL PAPER

Journal of Evaluation in Clinical Practice WILEY

The Alliance for Healthier Communities as a Learning Health System for primary care: A qualitative analysis in Ontario, Canada

Danielle M. Nash PhD[1,2,3] | Judith Belle Brown PhD[3] | Cathy Thorpe MA[3] | Jennifer Rayner PhD[3,4] | Merrick Zwarenstein MBBCh, PhD[1,2,3]

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Alliance Staff and Providers' Perspectives on LHS

- Qualitative descriptive study

- Individual semi-structured interviews with CHC staff and providers

- 6 CHCs: 3 urban, 2 rural and 1 suburban

- 29 participants:
  - 8 Executive Directors, 6 managers, 8 data support personnel, and 10 providers (family physician, nurse practitioner, nurse, social worker)

Alliance Staff and Providers' Perspectives on LHS

- Provided a definition of a LHS
- Asked about their familiarity with the concept of a LHS and their opinion on how the Alliance is functioning as one based on various components:
  - Data, people, resources, oversight and monitoring, incentives, organizational culture, identification and prioritization, and impact

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Overview of Findings
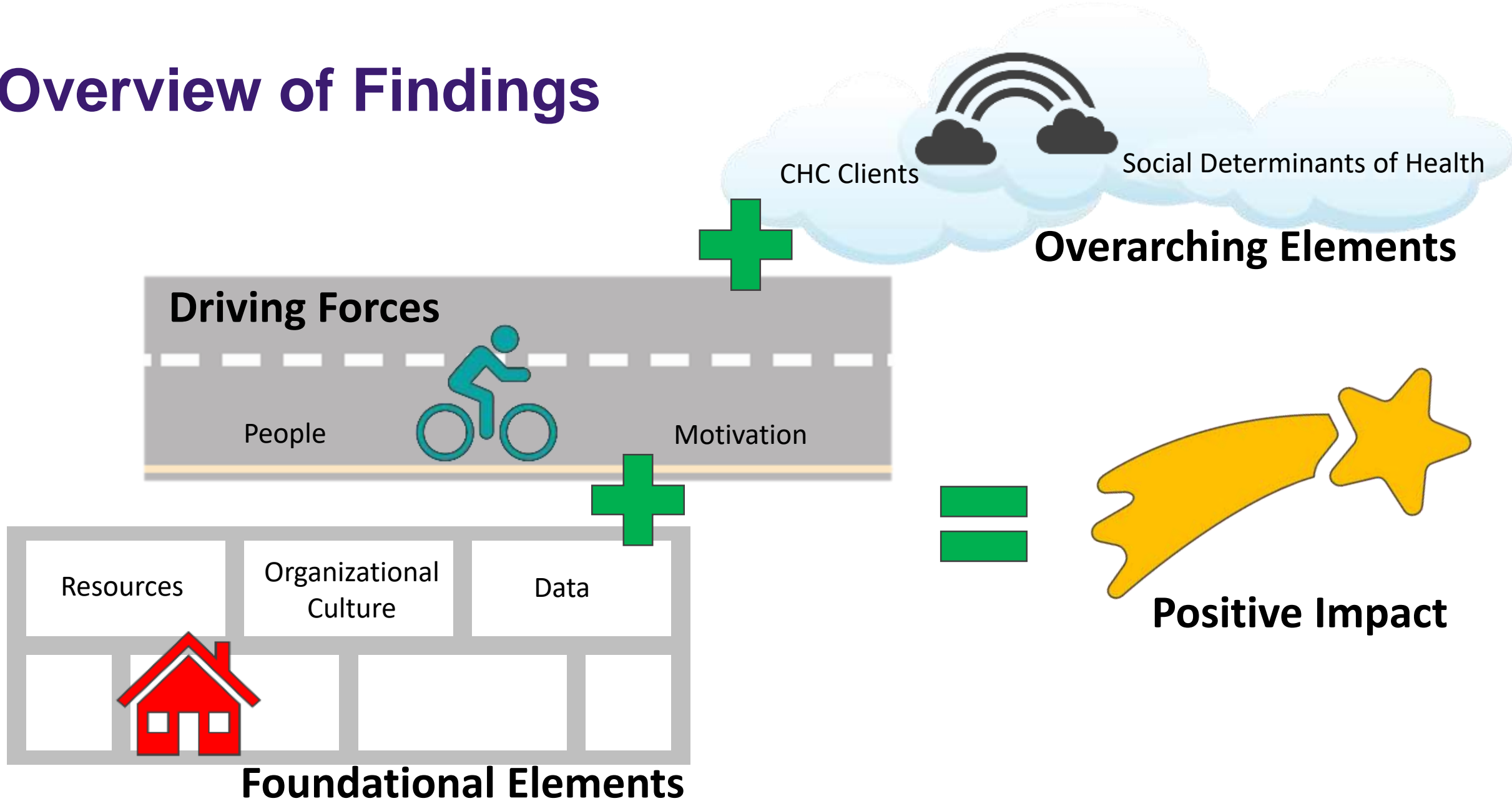
CHC Clients   Social Determinants of Health

Overarching Elements

Driving Forces

People   Motivation

Resources	Organizational Culture	Data

Foundational Elements

Positive Impact

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Study Findings

- Strengths:
  - Positive culture around developing a LHS
  - Access to data support staff (also area for improvement)

- Areas for improvement:
  - Better data quality
  - Alignment between the most efficient methods to enter data and to retrieve it for analysis
  - Use of data in real-time
  - Dedicated time and funding
  - **Engagement particularly among clinicians**

The Present

LHS in Action: Learning Collaboratives
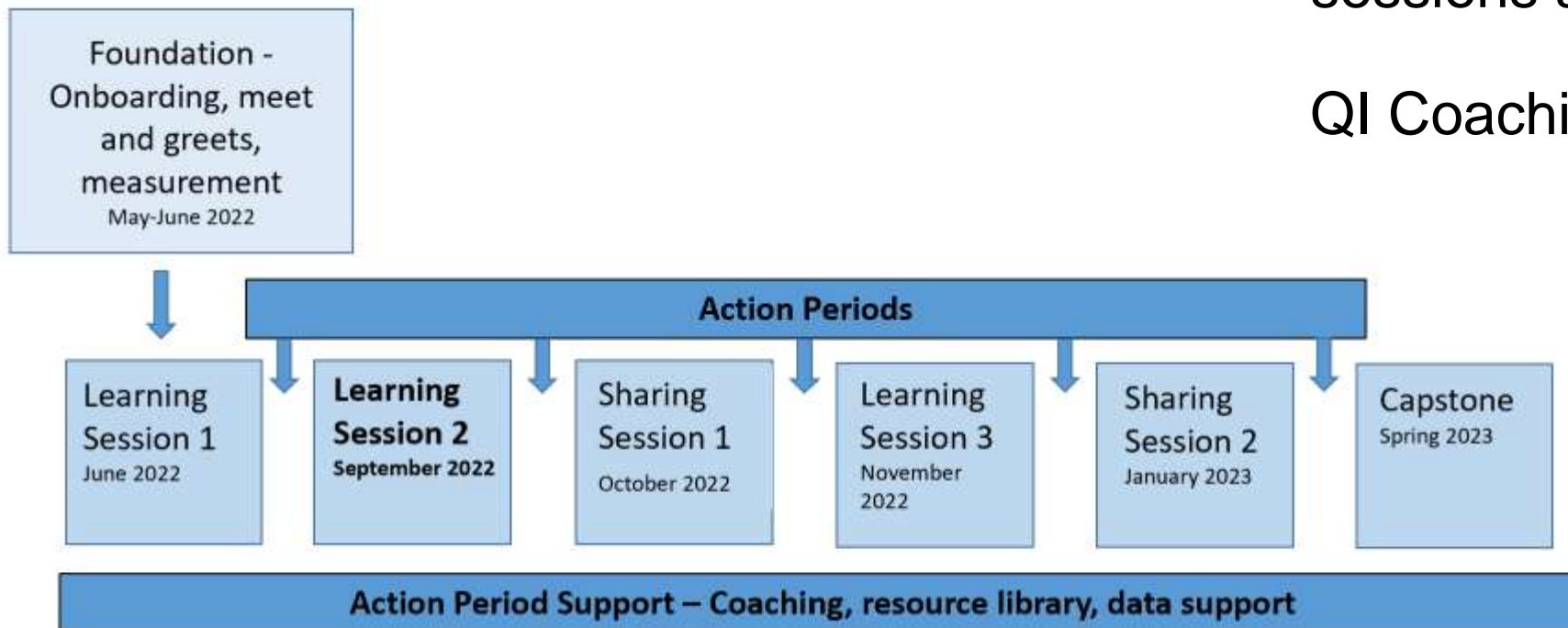
Evolving into a LHS
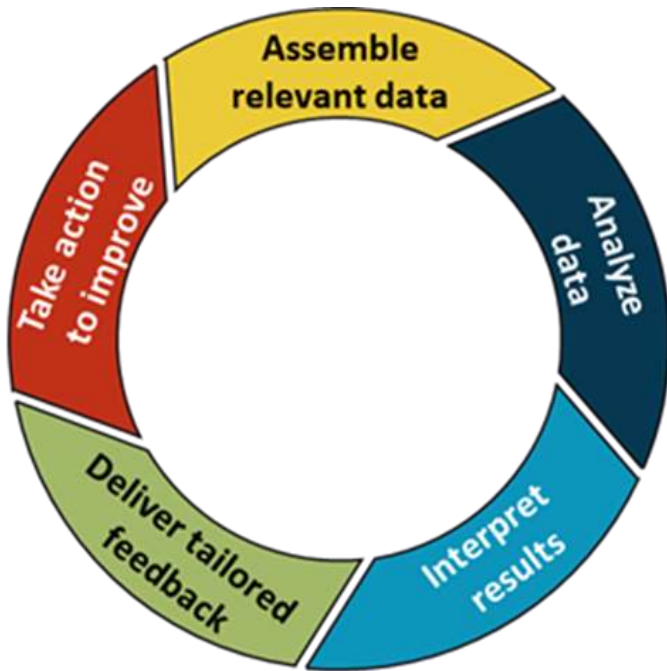
- 5 actions in the cycle of learning for the Alliance LHS
- Historic focus has been on 3 – assembling relevant data, analyzing the data and interpreting results
- Less emphasis on delivering tailored feedback and taking action to improve
- To mature as a LHS, we had to focus on these last two actions

A Learning Collaborative is:

A short-term learning system that brings teams together to seek improvement in a focused topic area

Combination of didactic learning sessions and action periods

QI Coaching provided to teams

Foundation - Onboarding, meet and greets, measurement
May-June 2022

Action Periods

Learning Session 1
June 2022

Learning Session 2
September 2022

Sharing Session 1
October 2022

Learning Session 3
November 2022

Sharing Session 2
January 2023

Capstone
Spring 2023

Action Period Support – Coaching, resource library, data support

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Learning Collaborative Objectives

1. Support centres to improve on the topic of interest

2. Build centre's QI muscle – increase knowledge of QI methods and tools and increase capability to "do QI"

3. Support the development of and transition to a Learning Health System
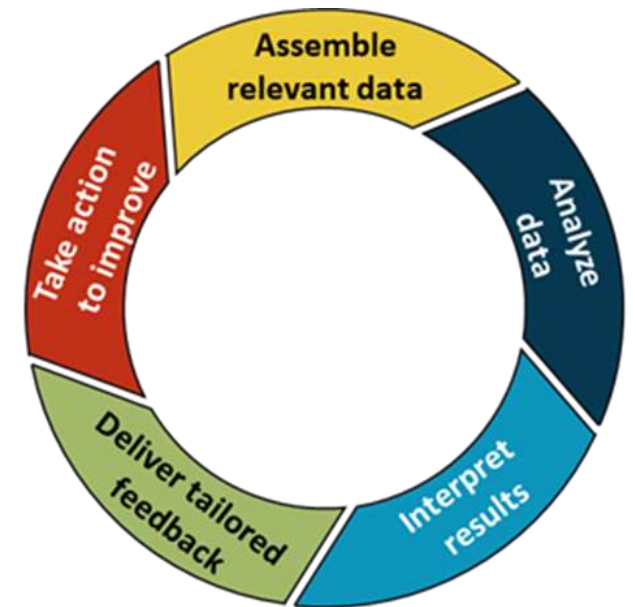
Learning Collaborative 1 (LC1)

- September 2021 – April 2022
- Topic: Improving Cancer Screening rates
- Chosen because of the impact of the pandemic on screening rates
- 13 teams joined (10 CHCs, 3 AHACs)
- Held meet and greets with all teams, 3 learning sessions, 1 sharing session and a final congress
- We adapted as we went based on feedback from teams
- We did a formal evaluation at the end and then incorporated those findings into our second learning collaborative

Reflections from the QI Coaches on LC1

Coaches saw:
- Leadership
- Teamwork
- QI "muscle building"
- Clinical engagement
- Improvement
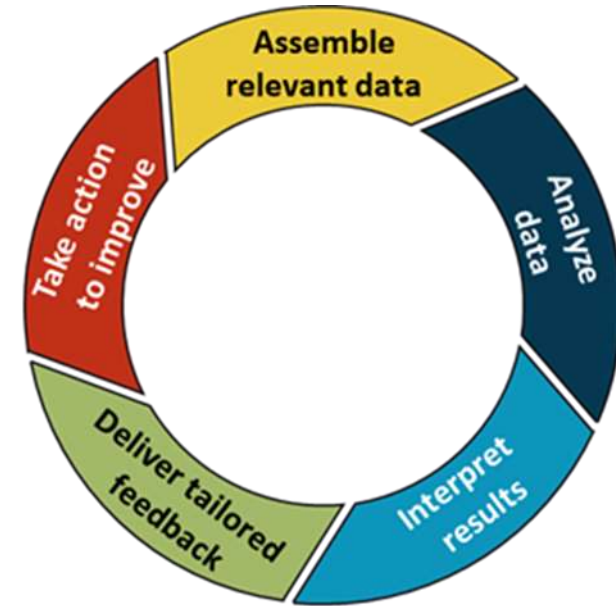
Feedback from Participants

Amazing examples of nurses working to their full scope of practice.

I really like the sharing sessions. It is interesting to hear how others worked through their difficulties. Some of those ideas may help in our health centre as well.

Leadership on the teams has been incredible – and that leadership came from all parts of the team.

This was really impactful and helped us feel part of a larger community doing similar work. Great initiative!

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Improvements from the Cancer Screening Learning Collaborative
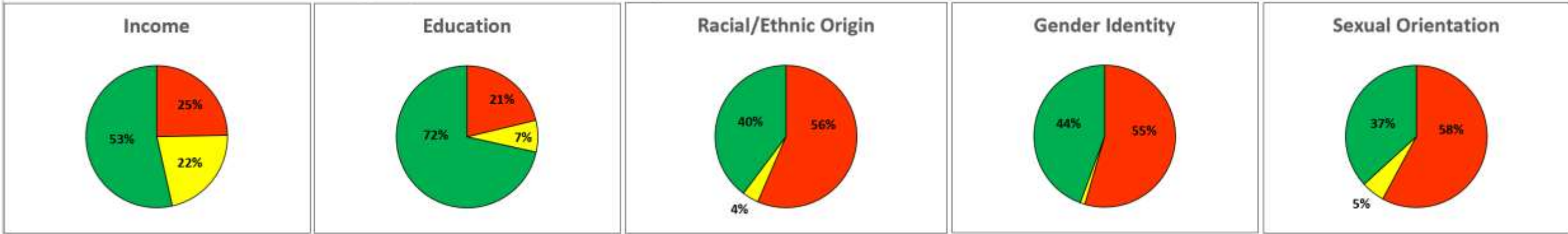

Cervical Cancer Screening
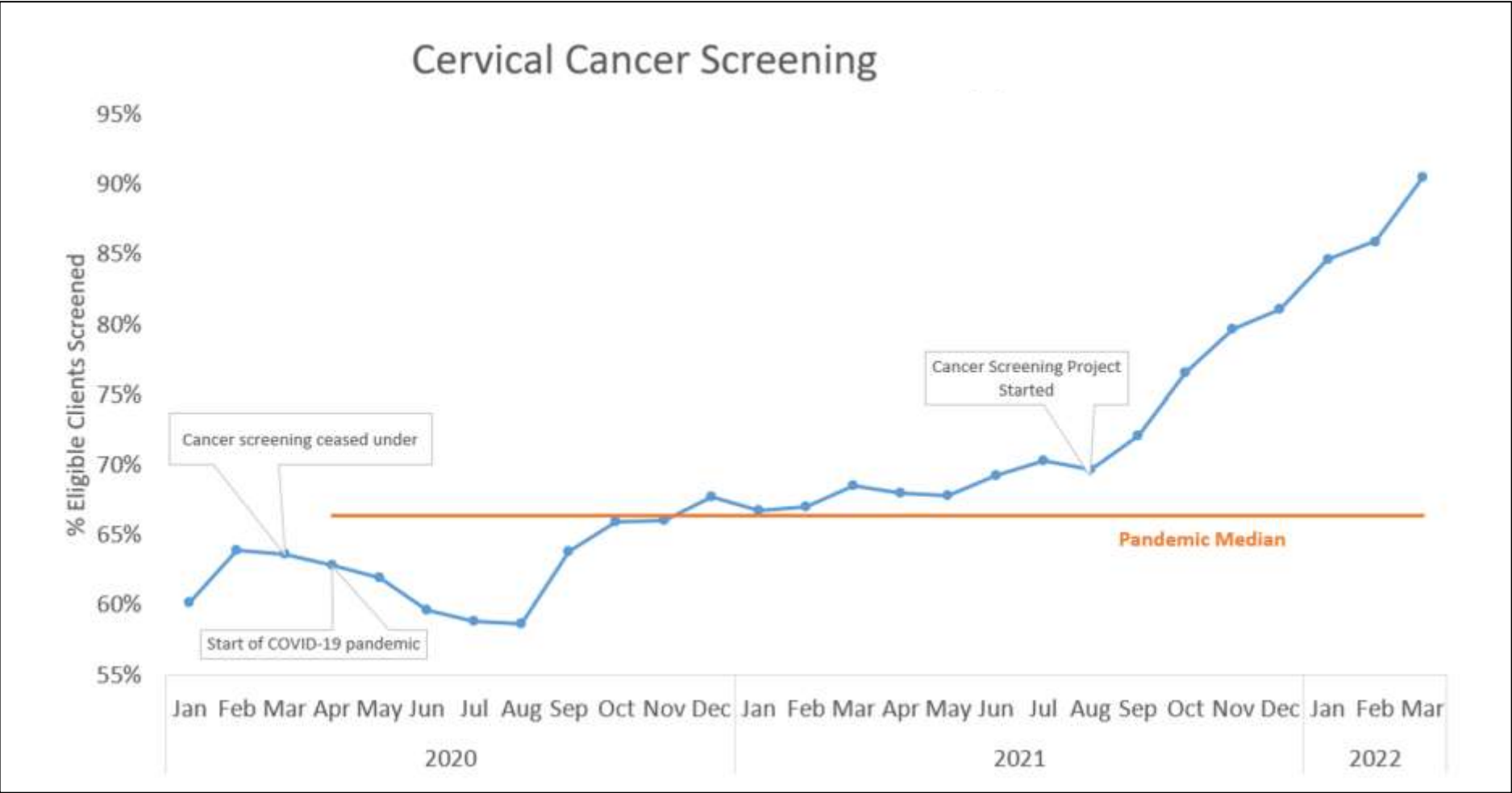
Learning Collaborative 2

- May 2022 – March/April 2023
- Topic – Foundations of Equity LC: Improving socio-demographic data
- Chosen because of a sector wide commitment made in 2020
- 27 teams joined – currently mid-collaborative

- Made changes from LC1 based on evaluation
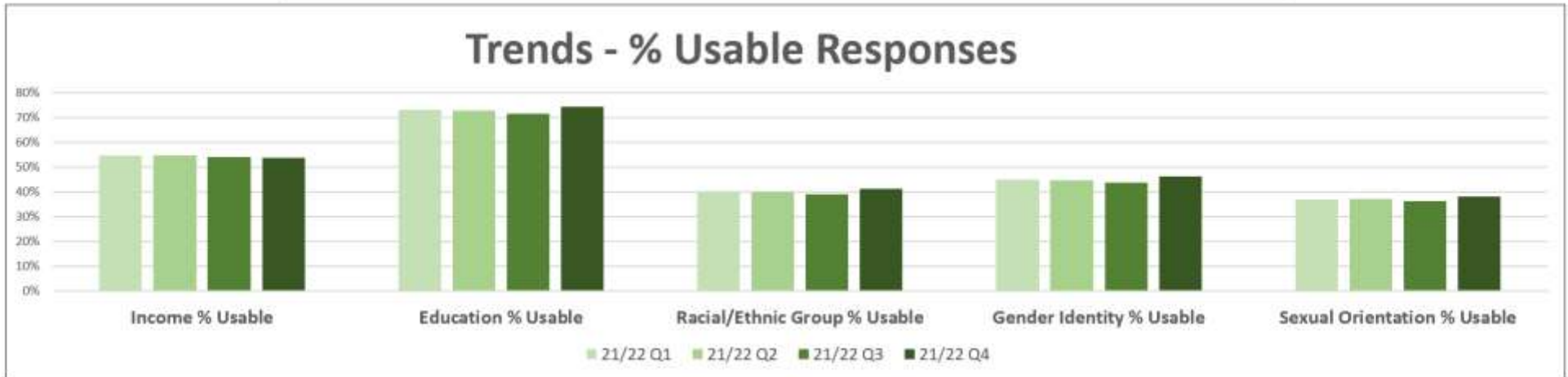- Wanted to delivered tailored feedback to spur learning and improvement
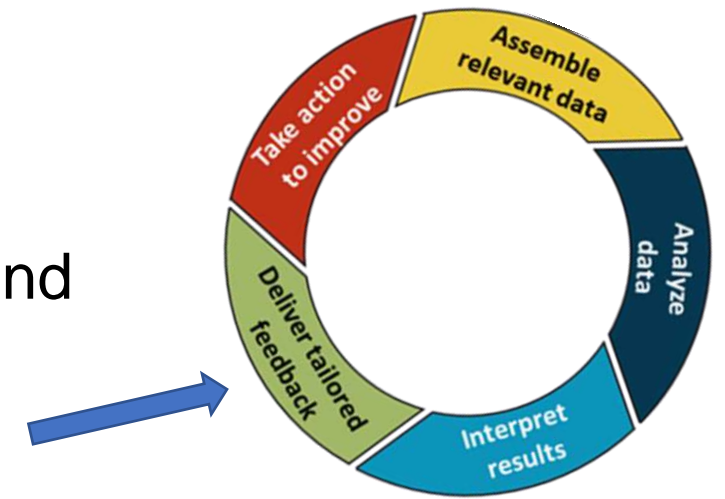
Delivered Tailored Feedback: SD Placemat

Sociodemographic Data Quality Placemat - CHC Sector- Q4 21/22

Income
- 53%
- 25%
- 22%

Education
- 72%
- 21%
- 7%

Racial/Ethnic Origin
- 40%
- 56%
- 4%

Gender Identity
- 44%
- 55%

Sexual Orientation
- 37%
- 58%
- 5%

Legend:
- ■ Usable responses
- □ Unknown (data unusable for client categorization)
- ■ Missing (no response)

Trends - % Usable Responses

- Income % Usable
- Education % Usable
- Racial/Ethnic Group % Usable
- Gender Identity % Usable
- Sexual Orientation % Usable

■ 21/22 Q1 ■ 21/22 Q2 ■ 21/22 Q3 ■ 21/22 Q4

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Summary of Learning Collaboratives

- Participation has been good

- LC1 Evaluation was positive and teams saw improvement

- "Walk the improvement talk" – implemented changes in LC2

- Building coaching capability in the Alliance team to support the teams

- The Alliance LHS continues to evolve …

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The Future

Involvement with other LHS and what's next

Sector-wide Dissemination and Evaluation

- 13 member organizations participated in the first LC, 27 in the current one
- Those who did not participate should also benefit from the learning, system changes, and improved quality
- The next challenge is to package the information (change package or intervention) and disseminate and implement this across the other sites
- This would allow us to evaluate how well the LC information is changing practice and improving patient care
- The evaluation would be 'invisible' to the CHCs and occur in the background with no extra work needed
- Develop an extended learning model

Primary Care to Integrated Health Data

EPIC LHS

POPLAR

PCRN

Integrated Health Systems

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POPLAR: Primary care Ontario Practice-based Learning And Research Network

- POPLAR is a provincial initiative that includes 7 PBLNs (started in 2021)
- POPLAR aims to:
  - Strengthen practice-based clinical research & QI processes
  - Host a standardized provincial EMR database, the POPLAR Data Platform

https://www.poplarnetwork.ca/

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Building on a Strong Foundation
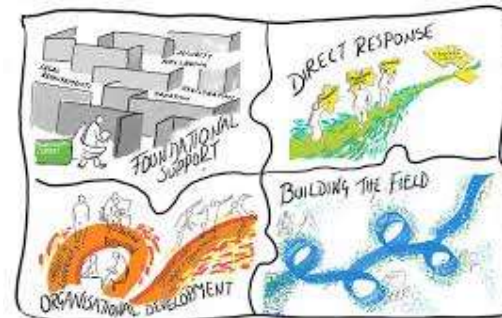# 2016-2022: SPOR Primary Care Research Network:

Achievements:

Cross provincial collaboration
Infrastructure: clinicians, patients, decision-makers

Leveraged: additional $38M

Capacity building: scientists, clinicians, patients

2022-2027: Activities

1. PHC learning health system(s) – provincial/territorial leadership, practiced based research and learning network(s), common data repository consisting of EMR data linked to patient reported experience and outcome measure (PREMs/PROMs) data;

2. PHC projects ready for scale and spread: impactful for patients most vulnerable because of multiple intersecting determinants of health;

3. Knowledge exchange and mobilization activities: sharing learnings across provincial and territorial healthcare systems;

4. Patients and policy makers co-creating primary care research priorities

5. Network coordination to ensure continuous alignment between the pan-Canadian pieces and movement towards sustainability of a more permanent entity within the next 5 years.

Integrated Health System…dreaming of the day
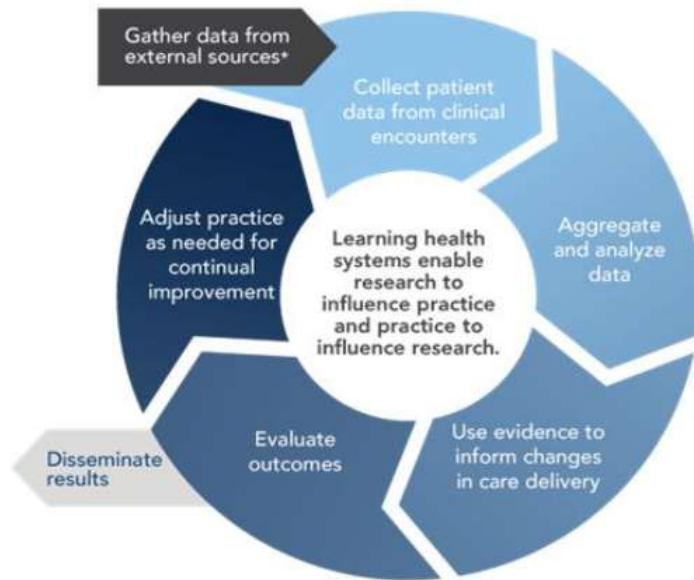
- …when the **boundaries** between health services & clinical research, care, and management would **disappear**

- …when **all** experience & outcomes contributes to the "big data" body of evidence

- …where evidence is available **across the heterogeneities** of patient needs, social contexts, & care settings

- …when patients, clinicians, managers & policy makers, would be both **creators** & **consumers** of the **latest information** on effectiveness, efficiency & patient centredness
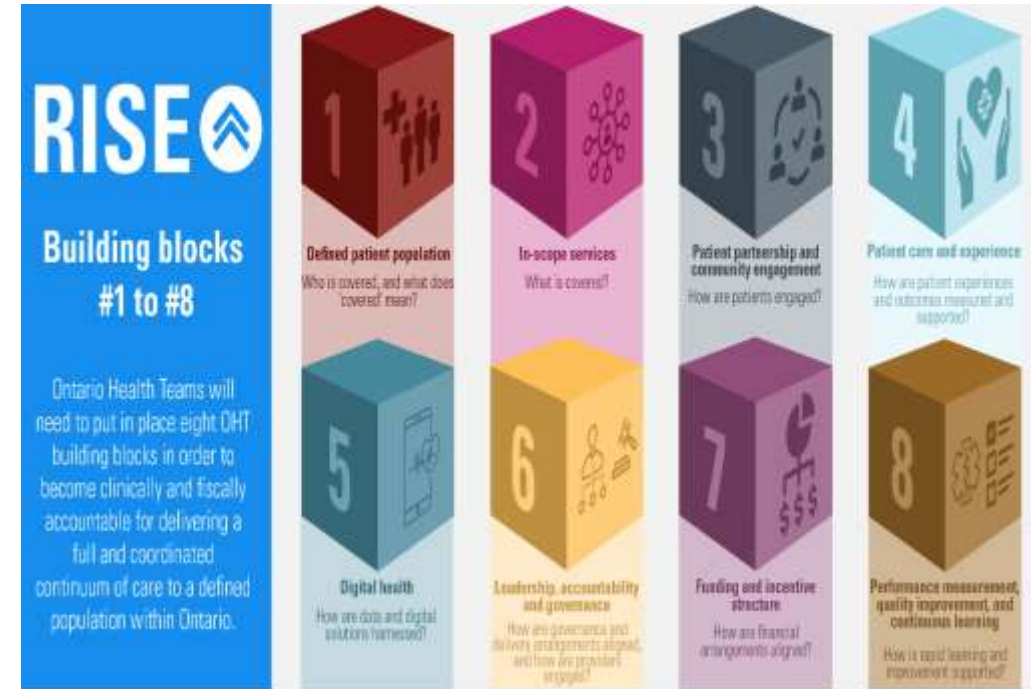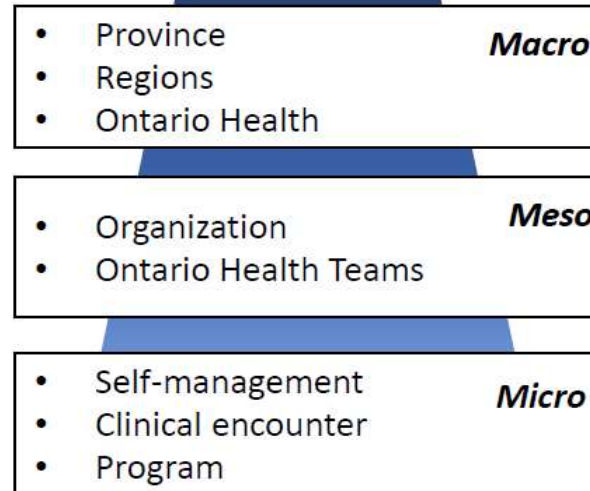
Learning Health System in Ontario

The **Learning Health System (LHS)** is a rapid learning health system driven by real-time data and analytics:

1) Anchored on patient needs, perspectives and aspirations;
2) Driven by timely data and evidence;
3) Supported by appropriate decision supports and aligned governance, financial and delivery arrangements; and
4) Enabled with a culture of and competencies for rapid learning and improvement

LHS should work at all levels:

- Province
- Regions
- Ontario Health

Macro

- Organization
- Ontario Health Teams

Meso

- Self-management
- Clinical encounter
- Program

Micro

Key Elements to Enable a Health System LHS

A RAPID LEARNING HEALTH SYSTEM NEEDS:

Data infrastructure built on interoperability and enabled by policy

- Capacity to capture patient-reported experience, outcomes & costs
- Capacity to capture longitudinal data across time and settings
- Capacity to link health, healthcare, social care and SDOH
- Capacity to analyze data (staff and resources)
- Capacity to share data in a timely way with patients and providers

What's next for the Alliance LHS?

- A learning health system is a journey rather than a destination
- We are continuously learning and finding ways to improve
- We need continued feedback and engagement across all levels of the organization

"A revolution doesn't happen when society adopts new tools, it happens when society adopts new behaviours" – *Clay Shirky*

What's next for the Alliance's LHS?

Discussion

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Evolution of the Alliance LHS

- Uniquely successful uptake of the LHS approach within the Alliance
- Community of Practice -> Learning Collaboratives -> "Extended Learning Model"
- Need to respond to individual centre needs
- Continue to develop individual skills at the CHC-level and learn from each other

Questions for the Audience

1) How can the LHS have an impact at your own centre?

    a) How do we operationalize the LHS at each individual centre?

2) Where would you like to see the Alliance LHS go next?

    a) Clinical,

    b) Organizational,

    c) Other?

3) What is working well, and what would be even better if…?

Upcoming Webinar
Friday, October 7, 2021 – 12:00 pm

Finding Meaning in a Universe of Data : Exploring Opportunities for Learning Machines to Advance Health Care Planning and Delivery

How can learning machines / AI help us better understand our clients and their health care journeys?

How can they help us find meaning in sociodemographic, clinical, and health system data?

How can they support system and program planning and help us choose targeted interventions for clients and communities?

See link at QR code for more information and to register.

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Thank you!

Contact Danielle Nash for any further info:
danielle.nash@ices.on.ca

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Thank You