

# Welcome!

## Learning Health Systems Webinar

Wednesday, September 15<sup>th</sup>, 2021, 12:00 – 1:00 pm  
(NST)

**Get started now:**

Please check if your [speakers](#) are working and use the [chat box](#) to ask questions.

# How to participate in this webinar

The screenshot shows a Zoom meeting interface. At the top, the browser address bar displays <https://bongo-na-vc-3.youseeu.com/html5client/chat/public>. The Zoom window title is "Public Chat". The main content area shows a presentation slide titled "Tutorials/Tutoriales/Anleitungen/دروس/T" with "Slide 1" selected. The slide content is mostly blank. In the bottom right corner of the Zoom window, there is a vertical toolbar with icons for back, forward, close, and refresh. At the bottom of the Zoom window, there are icons for chat, video, and audio. A red circle highlights the chat icon in the top left corner of the Zoom window.

**Any issues? Technical Support in St. John's, NL: 709-864-8700 or go to <https://www.citl.mun.ca/support/>**

# Learning Health Systems

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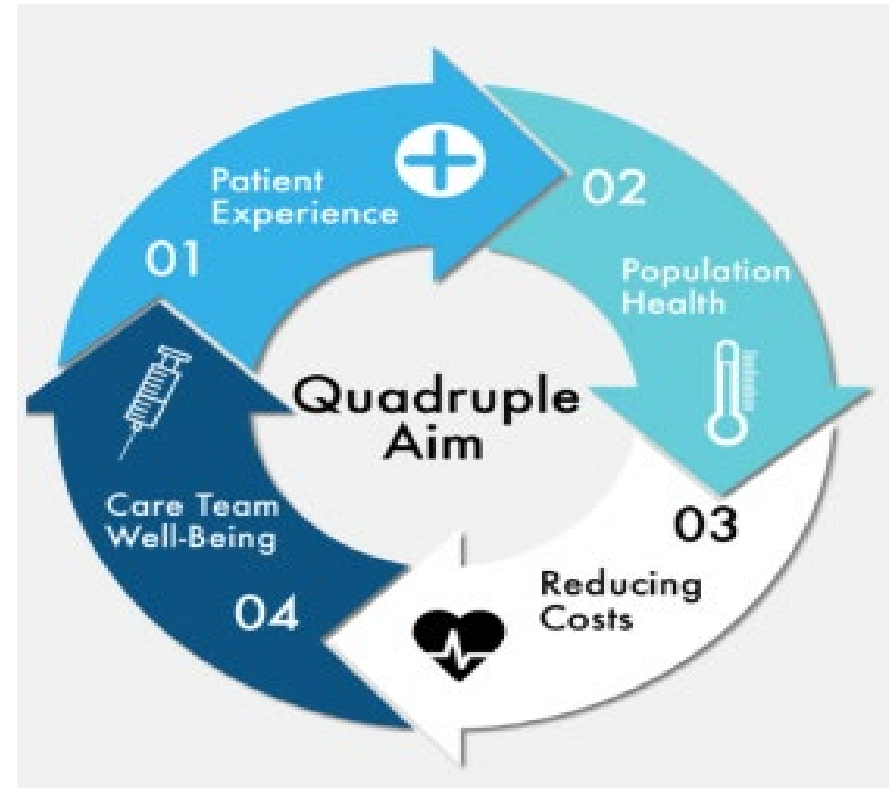
Fall 2021

# Some Healthcare Challenges

- An aging population
- More people with multi-morbidity
- An expectation and ability to provide more interventions
- Rising cost of care
- Increasing digitization but not necessarily full compatibility, integration and co-ordination
- Complex care systems
- Many faceted provider groups
- Lack of information about what is working well versus not

# So What We Need

- A way to track what is happening and to optimize it to achieve:
  - Optimal health outcomes
  - Good patient/population experiences
  - Satisfied and optimally working providers
  - Effective administration
  - Value for money/inputs



# A Possible Solution – Learning Health Systems

- Systems in which science, informatics, incentives and culture are aligned for continuous improvement and innovation, with best practices embedded in the care process
- An LHS combines research, data science, quality improvement, yielding knowledge as a by-product of the patient-provider interaction and focused on improving health and system outcomes

# An LHS Can Be

- A hospital e.g. an academic health science centre
- A health care organization e.g. an HMO
- A regional or national health system e.g. the Swiss LHS



# We Are Talking cycles



# Key Components of the LHS

- Bidirectional feedback loops – data collection embedded in care delivery, and care changed in response to evidence
- A partnership between research and clinical operations
- A robust data infrastructure
- Analytic capacities to make use of clinical data
- A means to integrate the new knowledge into care delivery

# LHS Core Values

- Person-focused
- Privacy
- Inclusiveness
- Transparency
- Accessibility
- Adaptability
- Governance
- Co-operative participatory leadership
- Scientific integrity
- Value

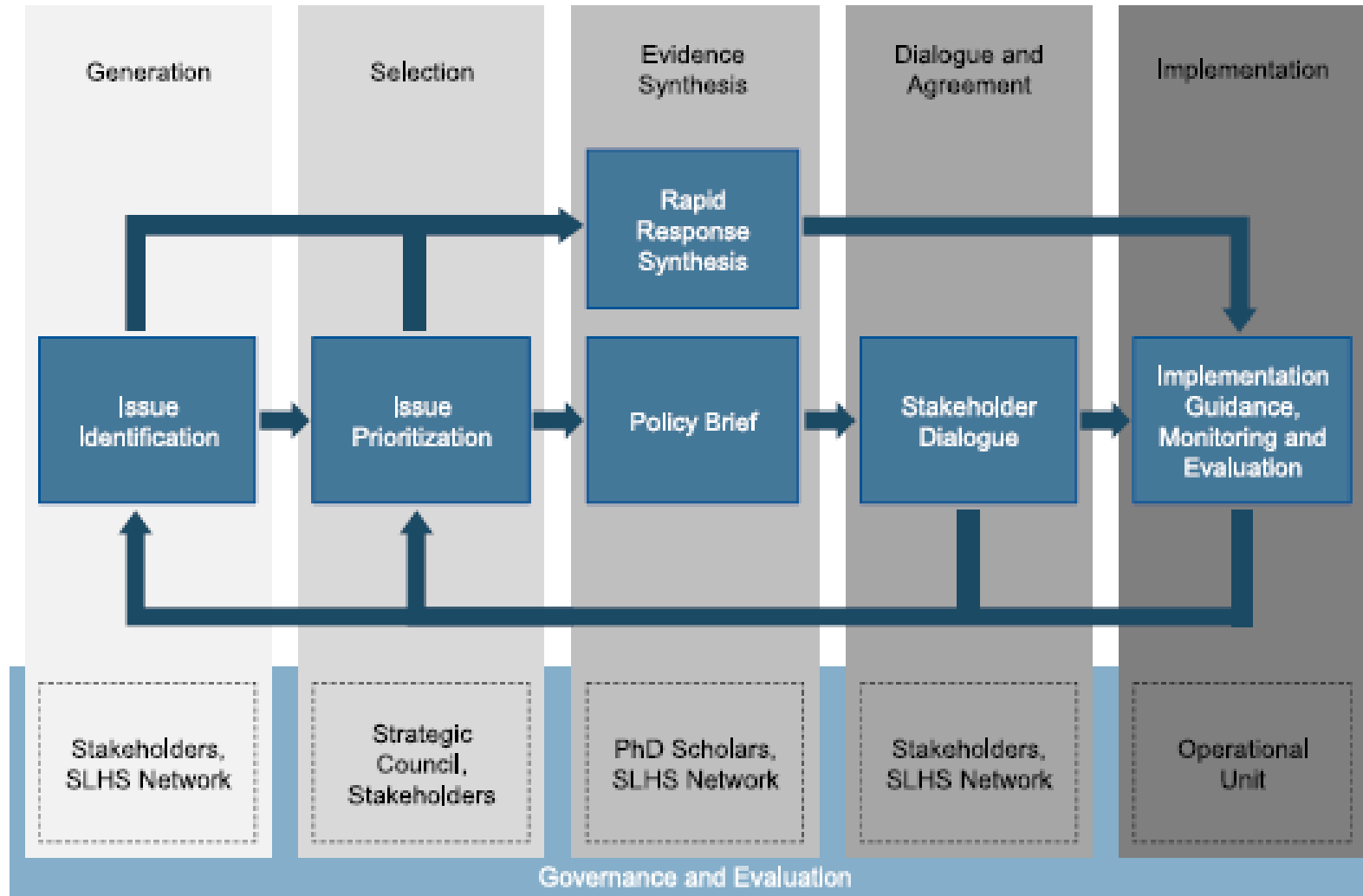
# Patient Roles

- Patient and public engagement are key
- Helps ensure person centredness from the design onward
- As learners of health literacy
- As consumers of care
- As sources of data to inform best practices
- As collaborators in evidence generation and dissemination
- As advocates for best care and outcomes
- As providers of feedback to help systems adapt

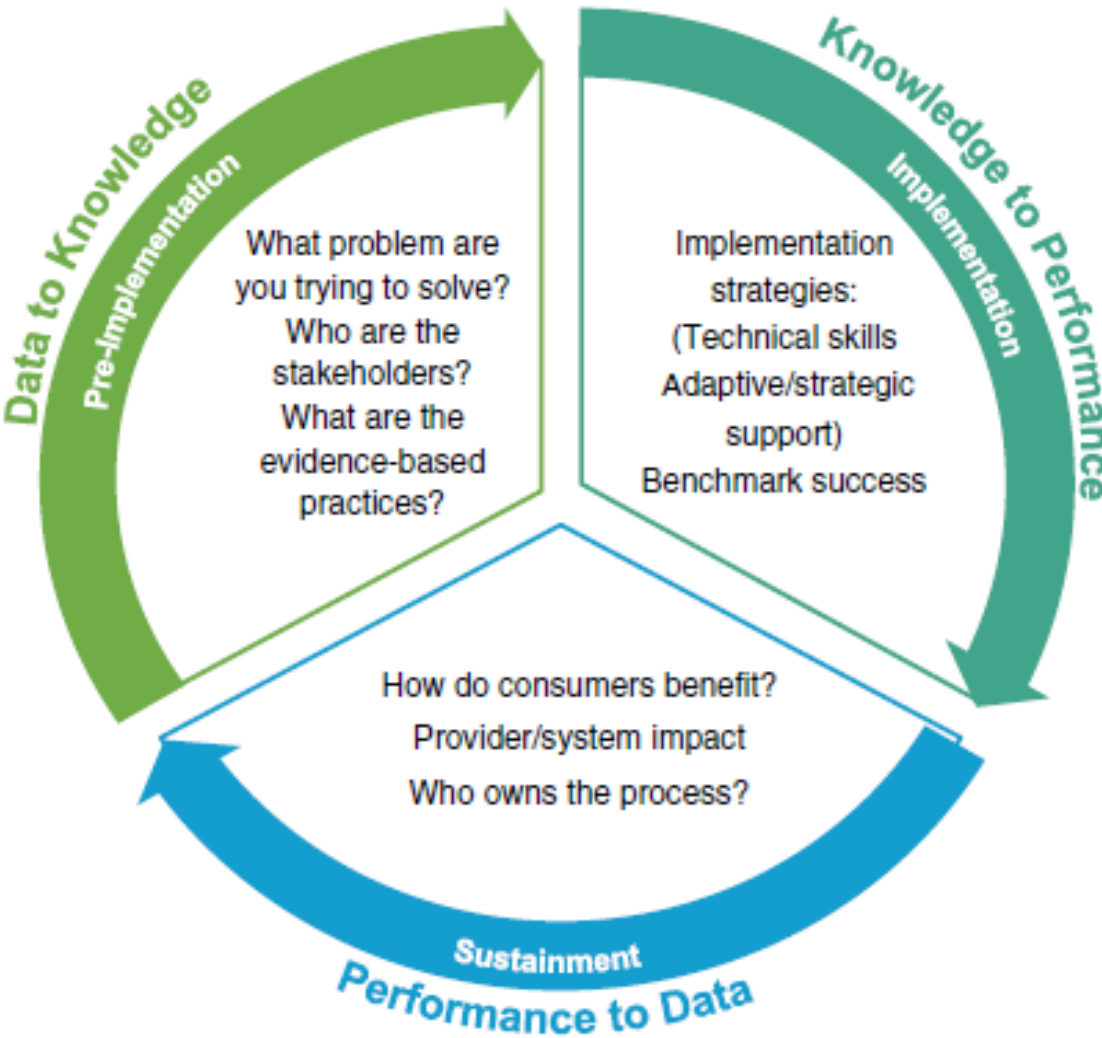
# What we need here

- A way to identify issues, problems or gaps: need to bridge the patients/ providers/ decision makers and researchers
- Managed data/information to understand the issues identified
- Systems to embed learning cycles (research included) in care processes
- Data and analytics to understand what is working (or not) and why
- Dissemination mechanisms to scale best practices
- A supportive culture where this has benefits for all

# Bridging Mechanism in the Swiss LHS



# Example of an Implementation Roadmap



# Ethics and the LHS

- There is a moral imperative to continuously seek best practices and to consistently apply them
- Health equity may be advanced – **ALL** may contribute to knowledge generation and may benefit from lessons learned
- Existing research ethical review frameworks may be a poor fit when the distinction between research and care is blurred
- An LHS should be based on a transparent compact between patients and the system – people know and expect their data to be used to improve future care
- Accountability to implement best practices is necessary to be ethical

# Embedding Knowledge Generation

## **Observation**

- Data from clinical care
- Analysed for patterns & opportunities to improve
- Compared to standards – internal and external for quality and adherence to best practice
- Outcomes, including PREMs and PROMs and value are trended
- Effect of changes monitored

## **Experiment**

- Identify target populations from registries
- Pilot studies followed by pragmatic largely cluster randomized trials
- The studied practice is applied
- Outcomes collected as part of care

# Two Local Examples

## **All province health**

- A broad look at health and care in the province
- Based on evidence generated here and elsewhere
- Looking for opportunities and broad future directions
- Intended to guide change which would need to be evaluated

## **Focus on a chronic disease**

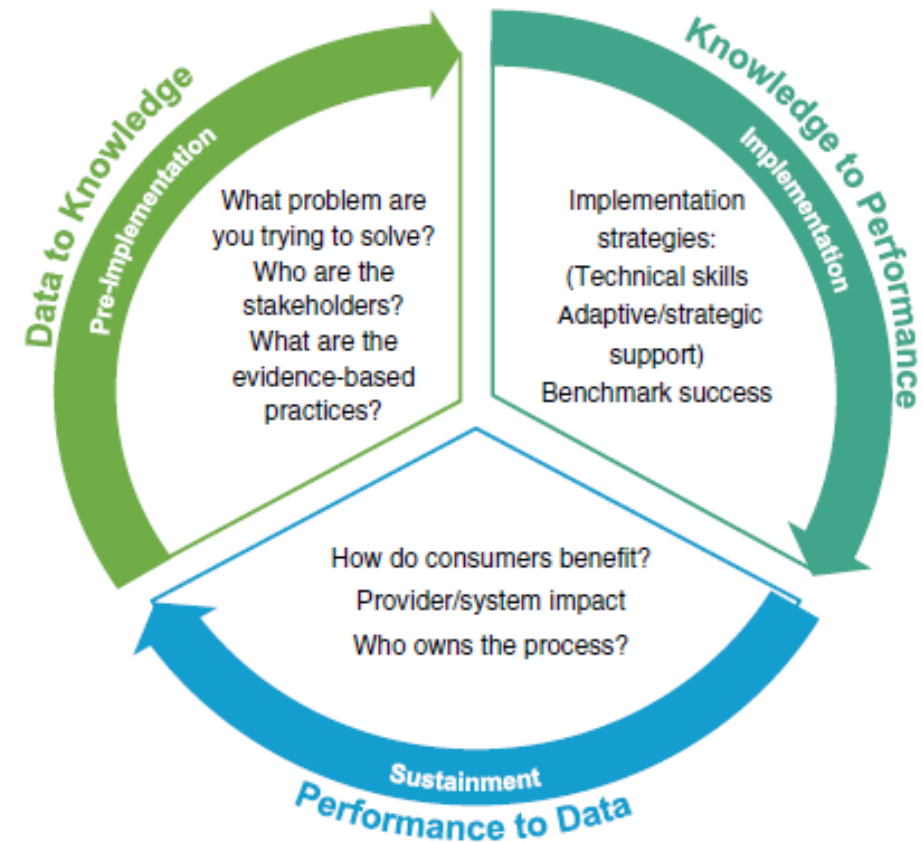
- NL has a high burden of diabetes
- NL has poor outcomes in terms of complications of diabetes
- NL lacks a fully integrated person centred care system
- People easily fall through the cracks



Indigenous Advisory Group  
Community Sector Circle  
Key Informant Groups  
Engagement Group

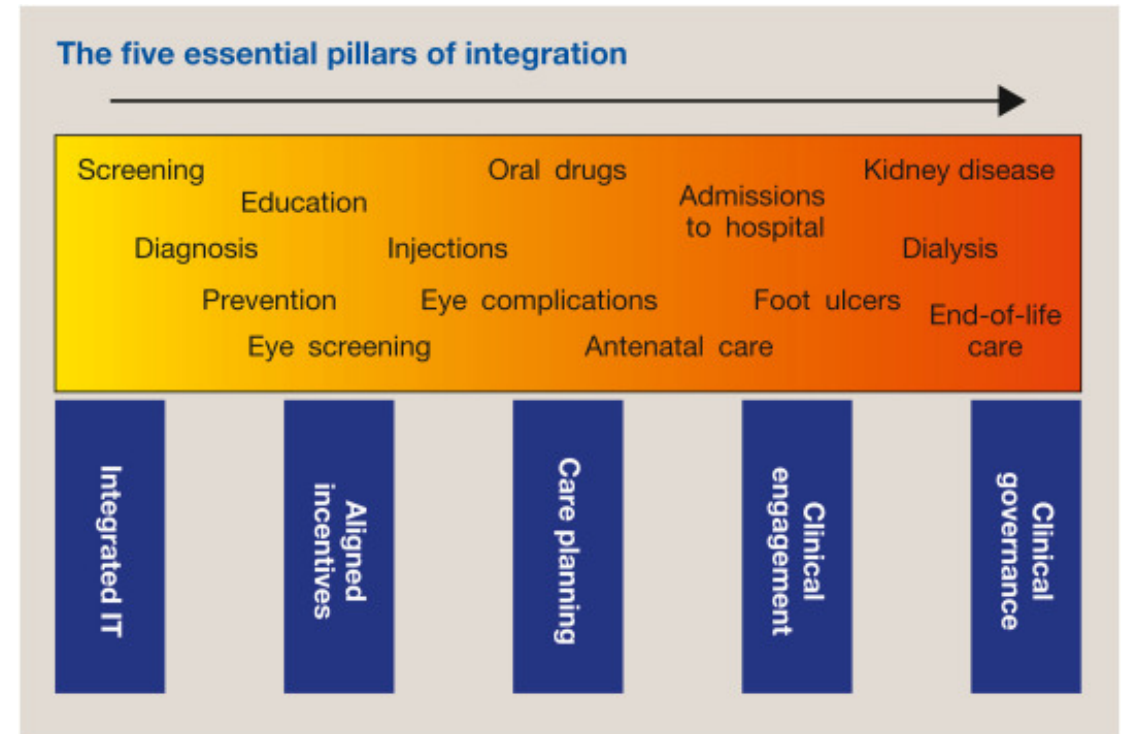
# Health Accord NL

- Full scope looking at health – determinants and care
- Using data to identify what is not good at present
- Combining experts, system members, policy makers and the public
- Discussing the data and imagining what would be optimal
- Making recommendations for change
- These are the first two parts of an LHS cycle

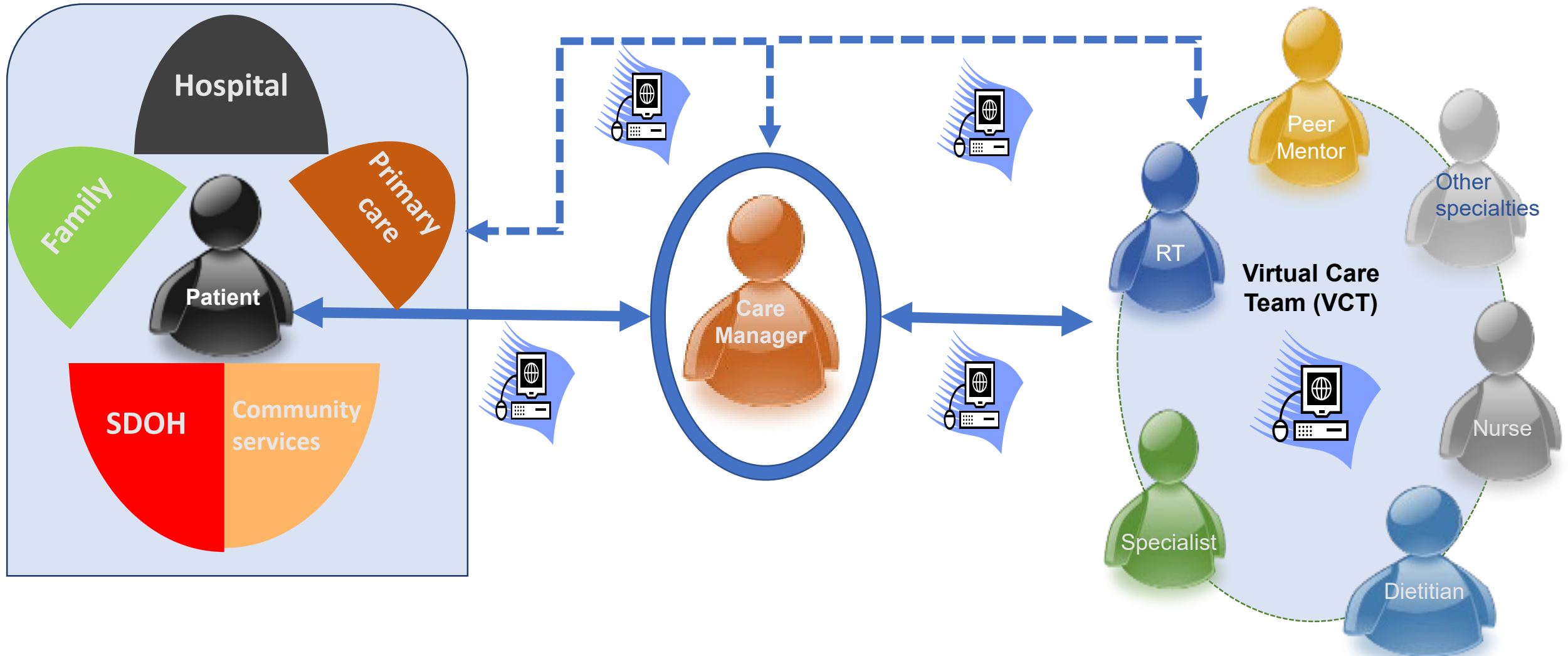


# Developing New Care Options for Diabetes

- Those at highest risk may lack consistent care
- Patient self management is not optimized and supported
- Care elements are poorly integrated (e.g. FPs, DM educators, specialists and other RHA systems including RPM)
- Recommended screening systems are lacking (eye and foot)



# Leverage Existing Assets



# Data and Information

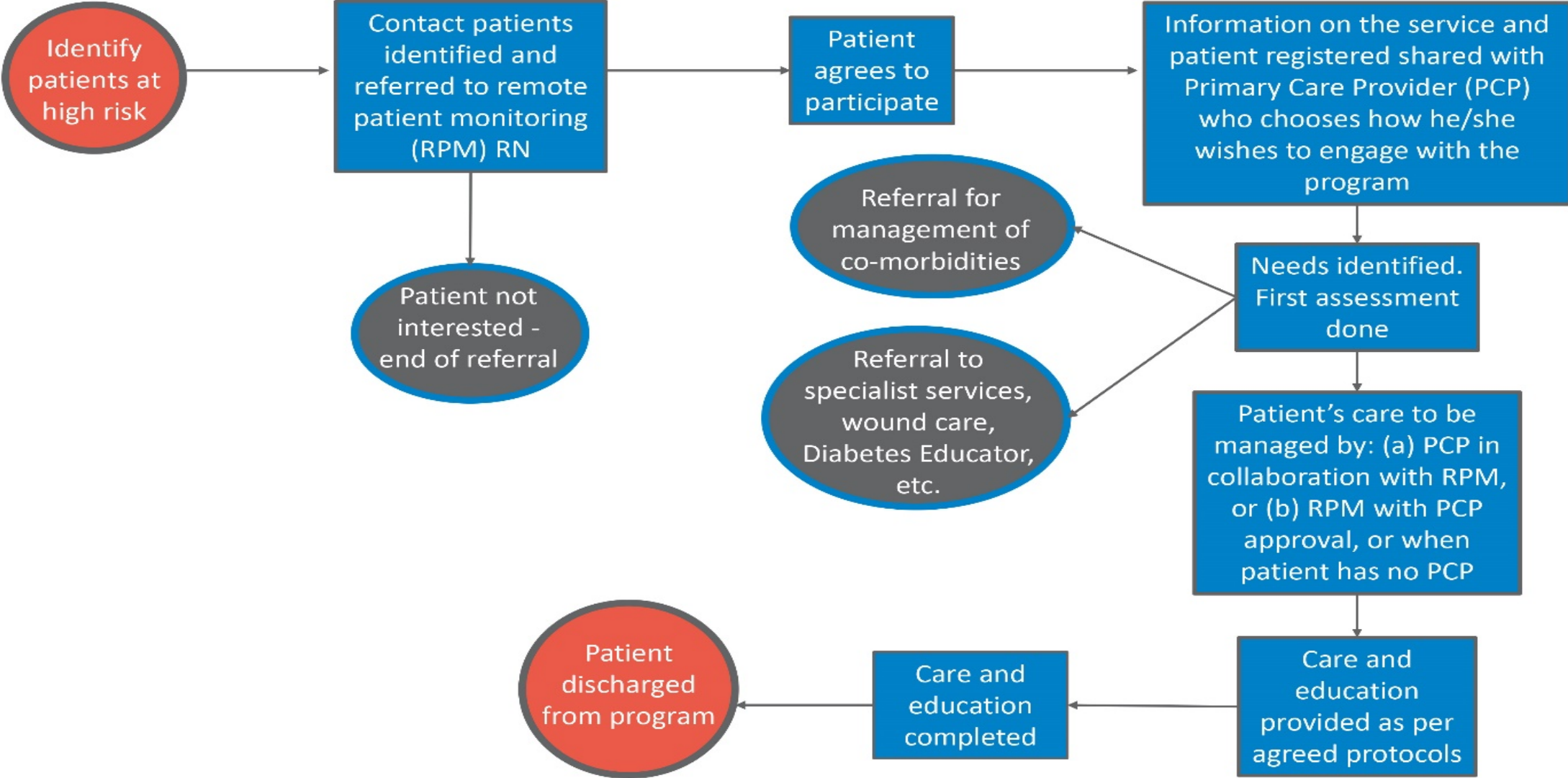
## **Need**

- Find those at high risk
- Collect and share data/information across providers
- Track, schedule preventive care
- Monitor outcomes

## **Solution envisaged**

- Analyze chronic disease registry to find those with risk markers and care gaps
- Develop shared communication tools (EMR)
- A system within the RHA
- Secondary use of data plus patient/provider reported measures

# Data Informed Service Flow



# Who Is Working on This?

- Led by NL SUPPORT in collaboration with Diabetes Action Canada
- NL Team currently Eastern Health focused
- Includes patient partners, providers of all types, system administrators and leaders, NLCHI, RHA evaluation team, external entities like NL Optometrists Assoc.
- New service models may need government and professional association buy in and approval
- Some start up funds are being sought
- Will be a pilot and scaled, adaptable model, evaluated by observational means

# Part of an LHS?

- Responding to gaps and needs
- Adapting best practices
- Focused on the person
- Evidence driven and generating
- Intent to inform future care models for other chronic disease
- Will integrate with current and future community care systems

# To Get Us Going

- We need buy in at the highest level to support an LHS
- NL SUPPORT already works with DOHCS, RHA leads, Health Schools, Provider organizations and patients
- We need to facilitate the conversations necessary to seek agreement
- Then we need to facilitate the creation of a governance model and leadership
- Which should lead to new structures and processes to support and LHS
- There will need to be work done on developing the culture both with the public and system actors

# Upcoming sessions

## Save the date:

Eastern Health Diversity Project (Dr. Fern Brunger) –  
Tuesday, October 26<sup>th</sup>, 12-1pm (NDT)

Go to <http://nlsupport.eventbrite.ca> to register

Check out our past events, slides and recordings on our  
website at <https://www.nlsupport.ca/Services/Training>

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- **FREE** Training Program, open to anybody
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Sign up now: [nlsupport@mun.ca](mailto:nlsupport@mun.ca)

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\*Contingent on the availability of in-person sessions

# Keep in touch

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