POLICY BRIEF

A learning health system framework for Northwestern Ontario Health Teams (OHTs)

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PROGRAM: OHT impact fellowship program – team-based approach

METHODS: Multiple methods project (e.g., document review, knowledge synthesis, focus groups) and the development of a data framework to support population health management in Northern Ontario

EXECUTIVE SUMMARY

Our project found that a learning health system framework can support Northwestern OHTs in working with data to achieve meaningful outcomes. Our broad recommendations include:

- Build capacity in Northwestern OHTs in analytics, population health management, and data and information governance.

- Invest in regional data infrastructure and capacities to collect new, meaningful local information (e.g., experience and outcome measures).

- Create OHT-specific and Northwest regional data and information governance working groups that makes transparent policies and processes that honour First Nations, Inuit, Metis self-determination.

- Use population-level analyses to support clinical interactions and vice versa;

- Add local contextual knowledge to regional and provincial initiatives

POLICY ISSUE

Ontario Health Teams (OHTs) are models of care that aim to improve population health through care coordination and integration. Data plays an integral role in how health care is designed, delivered, and evaluated within OHTs. Northern Ontario population health and health system contexts influence how and to what extent data is used in planning and decision-making. Building a successful OHT requires specific infrastructure and tools to support continuous learning and collaboration with diverse partners to identify and address health challenges and inequities. Our team-based approach to the OHT Impact Fellowship included developing a learning health system framework to support data analytics and population health management in Northwestern Ontario.
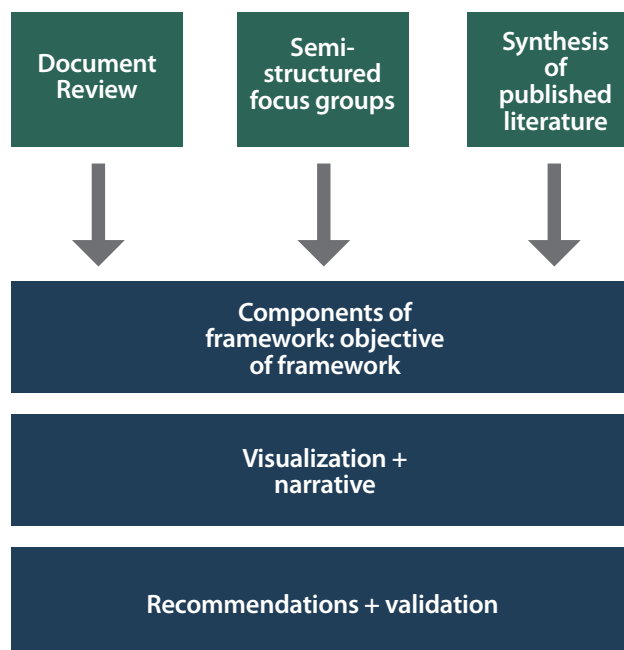
METHODOLOGY

In this project, we aimed to:

1. Specify a framework that describes data and supporting platform for regionally and locally integrated health system planning.

2. Document current data sources, digital/data tools, indicators, practices, and enablers.

3. Identify short term and long-term recommendations to implement the described framework.

To create the data framework, we conducted three distinct studies that would contribute to a "useful and useable" data framework:
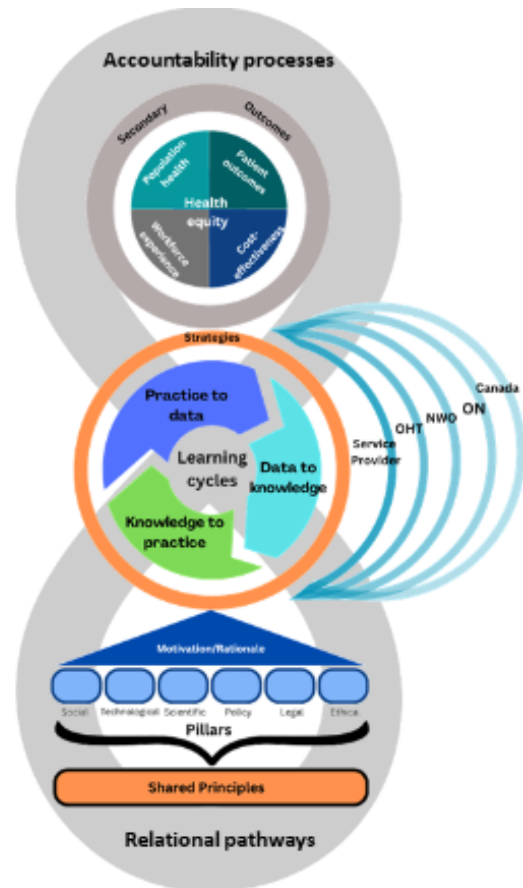
1. Document analysis

2. Semi-structured focus groups with data users

3. A knowledge synthesis of health data ecosystems

The first study identified concepts and definitions to specify a framework. We used directed content analysis to interpret the second and third studies based on findings from the first study.

Document Review	Semi-structured focus groups	Synthesis of published literature

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Components of framework: objective of framework

Visualization + narrative

Recommendations + validation

Our team specified a learning health system framework to guide Northwestern OHTs to improve how they collect, access, share, interpret, and communicate data. The learning health system framework identifies and describes necessary inputs, pathways, and outcomes of a health system that generates and translates knowledge. The framework outlines how health systems at different scales can (and should) align to achieve better outcomes, and that system learning requires trusting relationships and transparent accountabilities. The framework encourages a common lexicon for Northwestern OHTs related to data management, knowledge management, and change management. The learning health system framework can also be used to make recommendations about priorities, resources, capacities, and partnerships needed to achieve better outcomes.

A learning health system for Northwestern OHTs

Key findings	Key recommendations
Northwestern OHTs operate as **rural health hubs**. These require strong relationships between local service providers, neighbouring OHTs, and with regional specialized services. These collaborations are critical to provide coordinated care to Northwestern Ontario populations due to referral patterns and availability of specialty care. Current OHT performance measures can be misleading for Northwestern OHTs because of the urban- and hospital-centric assumptions of care, such as ED visits as first point of contact.	**Geodemographic analysis** of Northwestern communities, populations, and health systems should be used in population health management at local and regional scales. Performance measures, equity indicators, and quality improvement measures must be **validated in northern, rural settings**, and/or be adapted to reliably capture the intended constructs.
Health **priorities at the "local" level** (e.g., OHT or community) are different than provincial health system priorities, and sometimes from the region (e.g., North West).	**Amplify the knowledge** of Northwestern OHT and regional population and health system contexts at provincial and national tables to advocate for policies that better meet our needs. **Comparative analysis** to find shared priorities between Northwestern Ontario communities, regions and Province of Ontario at-large.
Lack of clear **data and knowledge governance structures** as well as mistrust among some OHT organizations impacts data capture, sharing, and use. There is little guidance or acknowledgment of practical ways to honour First Nations, Inuit, Métis sovereignty.	Create OHT and regional **data and information governance** working groups to create transparent policies and processes that will honour First Nations, Inuit, Métis self-determination.
Local data, analyses, and interpretations can enhance centrally determined data and information (e.g., OHT dashboard), but are often not considered.	Build OHT-level and regional **capacity** in analytics, health information tools and datasets, and data and information governance, in Northwestern Ontario. Determine clear **accountabilities** for organizations and institutions at each scale of learning health system, especially related to data access, analysis, improvement processes, and reporting.
Northwestern OHTs have limited human resources and funding. These **resource constraints** can make it difficult to meet the data and analytic demands of partners, communities, and funders.	An **embedded research** team can enhance analytic and evaluation capacity within Northwestern OHTs to help mobilize a learning health system. Team members can also amplify Northwestern OHT health system knowledge among regional and provincial programs.