

### RISE brief 34: Data-analytics supports for Ontario Health Teams in the North

## Context

Ontario Health Teams (OHTs) in the North need access to 'boots-on-the-ground' data-analytics supports – including for identifying data needs and data sources, conducting data analysis, and using data analytics – to operationalize a population-health management approach and more generally improve equity-centred quadruple-aim metrics for their attributed population.

The purpose of this RISE brief was to inform a RISE jamboree that addressed three topics:

- 1) issues related to data analytics that have emerged as common to many OHTs in the North
- 2) data-analytics supports that have been or are being used now by OHTs in the North
- 3) additional data-analytics supports offered by partners to OHTs in the North (and those that could be offered)

The RISE jamboree provided an opportunity to hear directly from OHTs in the North about where our current understandings need to be corrected and where they see the greatest potential for better supports in future, including where their needs are met, existing relationships are leveraged, and support-partner capacities are used optimally. This version of the RISE brief reflects the input from current providers of data-analytics supports received during a meeting held in advance of the jamboree, as well as the input from jamboree participants.

This RISE brief (and the RISE jamboree it was prepared to inform) is the fourth in a series that relate to OHTs in the North, and it should be read in the context of: 1) an understanding of approaches to address and remove policy and program roadblocks to support Northern OHTs ([RISE brief 33](#), the third RISE brief in the series); 2) an understanding of the broader array of supports related to data analytics, particularly the guidance and other resources that do not count as 'boots-on-the-ground' supports ([RISE brief 8](#), which will be updated in early 2024); and 3) a learning-health system framework for Northwestern OHTs ([NOSM U policy brief](#)).

## Issues related to data analytics that have emerged as common to many OHTs in the North

The key issues identified in the Northern Ontario School of Medicine University (NOSM U) policy brief and related conversations include those about data and data analytics, as well as issues that may affect whether and how OHTs in the North can leverage available supports:

- **data-governance tensions**, including across governance regimes that support the health system (e.g., stewardship of primary-care data) and those that support the research system
- **data-operations confusion**, including around data sharing, usage, and linkage; around responsibilities for various aspects of data governance and management; around who is responsible for analyses and/or reporting to support

### Box 1: Coverage of OHT building blocks

While this RISE brief focuses most directly on building block # 5, the issues covered in the brief need to consider all of the building blocks, given that data analytics underpins all of them:

- 1) defined patient population
- 2) in-scope services
- 3) patient partnership and community engagement
- 4) patient care and experience
- 5) digital health and data analytics
- 6) leadership, accountability, and governance
- 7) funding and incentive structure
- 8) performance measurement, quality improvement, and continuous learning.

planning and decision-making in OHTs; and around misalignments between central-reporting requirements and local data needs

- **data-access challenges**, including unreliable internet connections that can make it difficult to collect, contribute, and use data (including data dashboards) in real time; delays in gaining access to critical repositories of clinical and administrative data; and gaps in the data that are available
- **data-trustworthiness concerns**, including the perceived accuracy of OHTs' attributed population (with some OHTs noting that if the attribution model isn't correct, data analytics won't matter) and the lack of alignment of the available data to how care is actually delivered 'on the ground' by OHTs in the North (e.g., billing codes do not capture the reality of patient/provider interactions, paper-based data from remote practices are not integrated into key data repositories, and data from health and social services funded by federal-government entities are excluded)
- **data-capacity inequities**, including data-savvy personnel being spread thinly across organizations and priorities, which means that many OHTs may not be able to support data-governance conversations, improve data assets over time, proactively analyze the available data, use the data to evaluate 'tests of change,' and broker agreements about needed supports with the consultants and academic partners available to support their work
- **cross-cutting issues related to Indigenous-owned data**, including those related to data sovereignty, governance and stewardship, the integration and consideration of Indigenous ways of knowing, safe self-identification processes, culturally appropriate data collection, and the right of Indigenous communities to choose not to partner with OHTs.

Without a concerted effort to address the above issues first, the risk is high that we will create Band-Aid solutions instead of a sustainable system for data analytics, and more broadly a system for ongoing learning and improvement.

## Data-analytics supports that have been or are being used now by OHTs in the North

Different types of data-analytics supports are available (see Box 2) and have been or are being used now by OHTs (see Table 1). It is important to keep in mind that: 1) OHTs are at different stages of maturity, so a given support may only be appropriate for some OHTs; 2) OHTs may also work closely with groups such as Northern local public-health agencies and other data holders (e.g., nursing stations, Indigenous health authorities); and 3) OHTs may have other ways to leverage qualitative data and stories.

### Box 2: Categories of supports available to OHTs

In this RISE brief, we group supports into four categories:

- 1) **academic partnerships**, which are: a) partnerships with individual researchers/academic institutions linked to a particular research project or program; b) usually dependent on existing networks and relationships; and c) most often initiated by researchers who have relationships with and insights from OHTs that can help to shape the form the partnership takes based on their needs
- 2) **funding supports**, which are: a) funding allocated to OHTs with the intention (at least partially) to improve their capacity to access and leverage data as part of their efforts to improve equity-centred quadruple-aim metrics for their attributed population; b) usually available to all OHTs via calls for proposals; and c) most often initiated by funders (e.g., Ministry of Health, Ontario Health) who draw on their regular interactions with OHTs to help align funding initiatives with both OHT needs and policy objectives
- 3) **programmatic supports**, which are: a) programs established by OHT support partners offering a defined set of supports related to a particular priority area for OHTs (e.g., governance, population-health management); b) usually available to all OHTs; and c) most often initiated by support partners who have relationships with and insights from OHTs that can help shape programmatic supports based on their needs
- 4) **relational supports**, which are: a) ongoing relationships between an OHT and a support partner that result in 'ad hoc' supports provided to OHTs in ways that are less formalized, and that can include a 'brokering' role between the OHTs and other support partners; b) dependent on existing networks and relationships; and c) most often initiated by OHTs and/or support partners and are iteratively adjusted as needed based on OHT needs.

**Table 1: Examples of data-analytics supports used by OHTs in the North**

| OHTs by region                                                                                                                                                                                                                                                                                                                                                              | Supports that have been used in the past by OHTs in the region                                                                                                                                                                                                                                                                                                                                                                                      | Supports used now by OHTs in the region                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Northeast Region</b> <ul style="list-style-type: none"> <li>Algoma OHT</li> <li>Équipe Santé Ontario Cochrane District OHT</li> <li>Timiskaming Area OHT</li> <li>Équipe Santé Ontario Sudbury Espanola Manitoulin Elliot Lake OHT</li> <li>Nipissing Wellness OHT</li> <li>Maamwesying OHT</li> <li>Parry Sound (note that this is not yet an approved team)</li> </ul> | Academic partnerships <ul style="list-style-type: none"> <li>OHT Impact Fellow (one team)</li> <li>Centre for Rural and Northern Health Research (CRaNHR) (two teams)</li> </ul> Funding supports <ul style="list-style-type: none"> <li>Ontario Health Test of Change Program (one team)</li> </ul> Programmatic supports <ul style="list-style-type: none"> <li>RISE population-health management coaches/monthly sessions (two teams)</li> </ul> | Academic partnerships <ul style="list-style-type: none"> <li>NOSM U co-designed course, support with existing data assets and equity-centred leadership and measurement (four teams)</li> </ul> Programmatic supports <ul style="list-style-type: none"> <li>RISE population-health management coaches/monthly sessions (four teams)</li> </ul>                                                                                                                                                                                    |
| <b>Northwest Region</b> <ul style="list-style-type: none"> <li>All Nations Health Partners OHT</li> <li>Noojmawing Sookatagaing OHT</li> <li>Kiiwetinoog Healing Waters OHT</li> <li>Rainy River District OHT</li> </ul>                                                                                                                                                    | Academic partnerships <ul style="list-style-type: none"> <li>OHT Impact Fellow (two teams)</li> </ul> Programmatic supports <ul style="list-style-type: none"> <li>Embedded evaluator (as part of their developmental evaluation) (one team)</li> <li>RISE population-health management coaches/monthly sessions (two teams)</li> </ul>                                                                                                             | Academic partnerships <ul style="list-style-type: none"> <li>NOSM U co-designed course, support with existing data assets and equity-centred leadership, co-development of a learning health system framework (three teams)</li> <li>OHT Impact Fellow (three teams)</li> </ul> Programmatic supports <ul style="list-style-type: none"> <li>RISE population-health management coaches/monthly sessions (four teams)</li> <li>Indigenous Primary Health Care Council (IPHCC) engagement supports (number not available)</li> </ul> |

## Additional data-analytics supports offered by partners to OHTs in the North

Support partners based in the North, those bringing an Indigenous lens, and those based in southern Ontario have the potential to provide many types of supports, whether or not they are routinely used now (see Table 2). A key challenge with these supports is that they tend not to be well coordinated (e.g., there is no 'one-stop shop' for support partners focused on OHTs in the North).

**Table 2: Examples of additional data-analytics supports offered by partners to OHTs in the North**

| Support partners                   |                                                                                                         | Description of supports that are offered or available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------------------------------|---------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Partners based in the North</b> | CRaNHR and related connections in its host institutions (Laurentian University and Lakehead University) | Academic partnerships and relational supports <ul style="list-style-type: none"> <li>Provides supports in response to requests, such as data extraction and analysis and guidance in the use of data for monitoring and reporting</li> <li>Has practicum opportunities (e.g., within respective public health, health sciences, and interdisciplinary graduate programs)</li> <li>Focuses on a number of areas: patient-oriented research with an equity lens, healthcare access, health workforce, and learning health systems</li> </ul> |
|                                    | Institute for Clinical Evaluative Sciences (IC/ES) North                                                | Programmatic supports <ul style="list-style-type: none"> <li>Responds to requests for data analysis related to health research questions that are rooted in rural and remote health</li> </ul>                                                                                                                                                                                                                                                                                                                                             |
|                                    | RISE-NOSM U                                                                                             | Programmatic supports <ul style="list-style-type: none"> <li>Customizes supports based on OHTs' needs to help apply a population-health management approach 'on the ground,' including surfacing data insights to inform population identification and segmentation</li> </ul>                                                                                                                                                                                                                                                             |

| Support partners                                                                                         |                                                                                      | Description of supports that are offered or available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                          | NOSM U                                                                               | Academic partnerships and relational supports <ul style="list-style-type: none"> <li>• Hosts an embedded research program focused on partnerships with policymakers, clinicians, patients, and community members</li> <li>• Focuses on a number of areas: primary health care, mental health, health workforce, and digital health evaluation</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Partners bringing an Indigenous lens</b>                                                              | Indigenous Primary Health Care Council                                               | Programmatic supports <ul style="list-style-type: none"> <li>• Provides support related to Indigenous inclusion and engagement in OHTs, and where suitable, Indigenous-led local or regional OHT models (including education and training on how to approach this, as well as considerations related to data governance)</li> <li>• Established and situates work within a framework for population-health management using an Indigenous worldview</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                                                                                                          | Mamow Ahyamowen                                                                      | Relational supports <ul style="list-style-type: none"> <li>• Provides data and analytic support for Northern Ontario Indigenous organizations that represent groups of First Nation communities, of whom some are associated with OHTs</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Partners based in southern Ontario (who may have mechanisms to also provide support in the North)</b> | Alliance for Healthier Communities                                                   | No supports offered are specific to OHTs, but to key partners in primary care (e.g., Community Health Centres) with connections to OHTs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                                                                                                          | Centre for Effective Practice (CEP)                                                  | Programmatic supports <ul style="list-style-type: none"> <li>• Provides educational tools for priority issues like data analytics for OHTs and their partner organizations</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                                                                                          | Data Analytics Integrated Decision Support (IDS), Ontario Hospital Association (OHA) | Programmatic supports <ul style="list-style-type: none"> <li>• Provides OHTs with a platform to facilitate access to harmonized, integrated patient-level data (dependent on health organizations in the North participating and signing data-sharing agreements and service-level agreements)</li> </ul> <i>Note: OHTs need to pay for this service</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                                                                                                          | Health System Performance Network (HSPN)                                             | Programmatic supports <ul style="list-style-type: none"> <li>• Develops and provides OHTs with access to guides and measurement tools for OHTs to evaluate their progress</li> <li>• Hosts webinars on OHT priority issues including population-health management, evaluation, and digital health</li> <li>• Oversees an online community of practice focused on evaluation and performance measurement</li> <li>• Supports the province-wide evaluation of OHTs</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|                                                                                                          | IC/ES                                                                                | See IC/ES North above                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                                                                                          | INSPIRE-PHC                                                                          | Programmatic supports <ul style="list-style-type: none"> <li>• Builds networks with Northern representation to provide primary care data analysis for OHTs, as well as indicators for primary care to support teams with evaluation</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                                                                                                          | Ontario Health Data Council                                                          | Programmatic supports <ul style="list-style-type: none"> <li>• Develops and shares guidance and strategic direction for improving how data is accessed and leveraged to improve equity-centred quadruple-aim metrics</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                                                                                                          | RISE (in addition to RISE-NOSM U above)                                              | Provides additional programmatic supports that often address data analytics (both directly and indirectly), including: <ul style="list-style-type: none"> <li>• coaching for population-health management working with clinical and operational leaders for priority-population working groups (particularly when focused on the early steps in population-health management that draw heavily on data analytics)</li> <li>• online peer learning and sharing spaces and monthly sessions for population-health management (particularly when OHTs raise data analytics as a priority issue to work through collectively)</li> <li>• online communities of practice focused on OHT building blocks and emerging priorities (hosted in partnership with Ontario Health) (particularly when OHTs raise data analytics as a priority issue to work through collectively)</li> <li>• on-demand evidence products for OHTs</li> </ul> |

| Support partners |  | Description of supports that are offered or available                                                                                                                                                                                                                                                                                                                                                                             |
|------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                  |  | <ul style="list-style-type: none"> <li>• facilitated deliberations for OHTs, support partners, policymakers, and other stakeholders on priority issues</li> <li>• 'one-stop' website for program support partners to include products or tools that could support OHTs (which organizes resources in ways that make it easy to find those related to data analytics)</li> <li>• events calendar and monthly newsletter</li> </ul> |

In addition to the data-analytics supports made available to OHTs in the North through the partners listed in Table 2, there are others that could build on their existing work to provide additional supports for Northern OHTs. These include:

- partners already in the data space, such as IntelliHealth Ontario, which could engage in a process to support OHT-led co-design/adaptation of the IntelliHealth clinical and administrative data repository in ways that are specific to the needs of teams in the North
- partners who are currently working in areas that are 'data-adjacent,' meaning they are currently being oriented to other applications (e.g., patient and public engagement under building block #3 and collaborative governance under building block #6) and could reasonably position themselves to provide Northern OHTs with targeted supports that would apply to their data-analytics efforts:
  - e.g., Accountability, Shared Leadership and Governance (ADVANCE Program) could build capacity for collaborative leadership and governance for data analytics
  - e.g., Ontario Health Indigenous Leads could work closely with Ontario Health North colleagues to ensure the approach is rooted in a commitment to reconciliation with Indigenous peoples
  - e.g., Public and Patient Engagement Collaborative (PPEC) could support the evaluation of public- and patient-engagement efforts that focus on data analytics (including through the development of guidance and tools, and one-on-one capacity building).

## Next steps for a joined-up approach to data-analytics supports for OHTs in the North

As noted earlier in this brief, existing data-analytics supports are not particularly well coordinated, and there is a growing recognition that the ad hoc and patchwork quilt approach is not working optimally in meeting the needs of OHTs in the North. To facilitate a more joined-up approach to providing Northern OHTs with data-analytics supports, the following could be considered as next steps:

- 1) providing every OHT in the North with access to a dedicated data-analytics person and data-analytics tools (supported through regional or central procurement or regional matching)
- 2) connecting all data-analytics people through a dedicated community of practice that includes academic partners in the North and data-analytics focused individuals based in the seven Northern Public Health Units
- 3) aligning supports to the reality that OHTs in the North are developing regional approaches to advance their work given the interconnectedness of teams both within and across the Northeast and Northwest (while still working to collect and report on the specific indicators that are provincial priorities)
- 4) establishing aggregate, integrated data as a public good and personal data as being patient-controlled (e.g., patients choose whether their data are shared beyond their immediate circle of care)
- 5) ensuring work involving Indigenous data is Indigenous led and undertaken at an Indigenous pace (with training on culturally safe data collection and Ownership Control Access Possession (OCAP) principles prioritized for everyone involved in an OHT).

## Key resources

- 1) Waddell K, Moat KA, Lavis JN. [RISE brief 33: Approaches to address and remove policy and program roadblocks to support Northern Ontario Health Teams](#). Hamilton: McMaster Health Forum; 2023.

- 2) Moat KA, Lavis JN. [RISE brief 8: Data analytics](#). Hamilton, Canada: McMaster Health Forum; 2019.
- 3) Wood B, French M, Jewett R, Daneshmand R, Meservia-Collins K, Hart K, Cameron E, Neil C, Kabel J, Logozzo J. [Policy brief: A learning health system framework for Northwestern Ontario Health Teams](#). Northern Ontario School of Medicine University, Thunder Bay Regional Health Research Institute, OHT Impact Fellows, All Nations Health Partners OHT and Rainy River District OHT; 2023.

Moat KA, McGeoch L, Wood B, Reid R, Hindmarsh M, Lavis JN. RISE brief 34: Data-analytics supports for Ontario Health Teams in the North. Hamilton, Canada: McMaster Health Forum; 3 November 2023.

RISE prepares both its own resources (like this RISE brief) that can support rapid learning and improvement, as well as provides a structured 'way in' to resources prepared by other partners and by the ministry. RISE is supported by a grant from the Ontario Ministry of Health to the McMaster Health Forum. The opinions, results and conclusions are those of RISE and are independent of the ministry. No endorsement by the ministry is intended or should be inferred.

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