Ontario Health Teams
Central Evaluation

An Evaluation Plan for the Implementation of Ontario Health Teams

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August 28, 2020 – Update addressing International Review and MOH Requests

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HSPN Health System Performance Network

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Preamble

This proposal was originally developed in October 2019 as Ontario Health Team (OHT) applications were being selected for candidate status, i.e., before any OHT was identified and before there was any access to OHT proposal information. We have updated this proposal to reflect responses to reviewers and with sample provider experience survey items following a scoping review undertaken in 2020. Otherwise we have left the core of the proposal intact as an indication of our initial plans driving the organization of our evaluation efforts.

The proposal underwent blind international peer review by four international experts and internal Ministry representatives. These reviews were provided to the HSPN team in the Winter of 2020. The HSPN team met with the Ministry to review and agree to the responses to reviews provided by HSPN. The summary comments and responses to the international and Ministry reviews are provided as an Appendix to this Report.

OHTs are a dynamic and evolving entities. The evaluation therefore will be dynamic and will change to adapt to the changes in focus, approach and implementation over time. The proposed evaluation plan will evolve regularly over the course of the implementation and will be documented primarily with updated and new documents that will be posted on the HSPN website and disseminated through electronic distribution channels and online webinar events.

COVID-19 represents a major new and unanticipated disruption to the health care system in Ontario and will continue to present a major context during the implementation of OHTs. Early reports from OHTs indicated a range of impacts. Some OHTs indicated that the relationships and partnerships that were started with the planning of OHTs created optimal shared approaches to local deployment of Personal Protective Equipment and reallocations of resources (e.g., hospital support for Infection Prevention and Control to staff within Long Term Care Homes and physician remote consultation to residents). In other cases, OHT development was put on hold. In most instances, the involvement of patients and caregivers did not receive the same level of attention as in the OHT development and application planning processes. We will continue to closely monitor and report on the impacts of COVID-19 as OHTs may alter their focus and implementation plans in response to this context.

Introduction to OHTs and alignment with Evaluation plan

Ontario Health Teams (OHTs) are being introduced to provide a new way of organizing and delivering care that is more connected to patients in their local communities. Many jurisdictions are developing new models of population-based patient-centred care. These initiatives bring together partners including health and non-health sectors, patients and caregivers in their design. They share clinical data, use data to support and monitor outcomes, and are accountable for a set of outcomes within a defined budget.[1] Under OHTs, members (including hospitals, doctors and home and community care providers) will work as one coordinated team - no matter where they provide care.

We present here the Health System Performance Network (HSPN) evaluation plan for OHTs. OHT evaluation will encompass the development and implementation of OHTs. In the period of study, OHTs will include models with varying strengths and maturity. There is a staged path to becoming a designated Ontario Health Team. The evolution pathway is described in the MOH guidance as follows:

The path to becoming a designated Ontario Health Team consists of four steps described in Exhibit 1: 1. Self-Assessment; 2. Validating Provider Readiness and assignment as in-development or in-discovery; 3. Application and identification as Ontario Health Team *Candidate;* 4. Becoming a Designated Ontario Health Team.

Exhibit 1. Steps to become a designated Ontario Health Team

	Description
1. Self-Assessing Readiness	Interested groups of providers and organizations assess their readiness and begin working to meet key readiness criteria for implementation.
2. Validating Provider Readiness (in-discovery / in-development OHTs)	Based on Self-Assessments, groups of providers are identified as being *In Discovery* or *In Development* stages of readiness.
3. Becoming an Ontario Health Team *Candidate*	Groups of providers that demonstrate, through an invited, full application, that they meet key readiness criteria are identified as **OHT Candidates** and begin implementation of the Ontario Health Team model.
4. Becoming a Designated Ontario Health Team	Ontario Health Teams Candidates that are ready to receive an integrated funding envelope and enter into an Ontario Health Team accountability agreement with the funder can be **designated** as an Ontario Health Team

The process above is iterative and is expected to continue across OHT Applicants representing local groups of providers until the entire Ontario population is attributed to an OHT. The next round of self-assessments and/or revised full applications is expected to take place in early 2020.

The evaluation of the OHT initiative is currently designed to encompass the first 3 steps of the process over the first 2.5 years. We anticipate no OHTs will be awarded Designate status until after this initial

[1] McCellan M, Udayakumar K, Thoumi A, Gonzalez-Smith J, Kadakia K, Kurek N, Abdulmalik A and Darzi AW. Improving Care and Lowering Costs: Evidence and Lessons from a Global Analysis of Accountable Care Reforms. Health Affairs 2017;36(11):1920-1927.

evaluation period. Exhibit 2 below outlines the stages of development and how four distinct layers of the evaluation are aligned with this development process.

Exhibit 2. Linkage of Evaluation Layers with OHT Cohort Designation Process

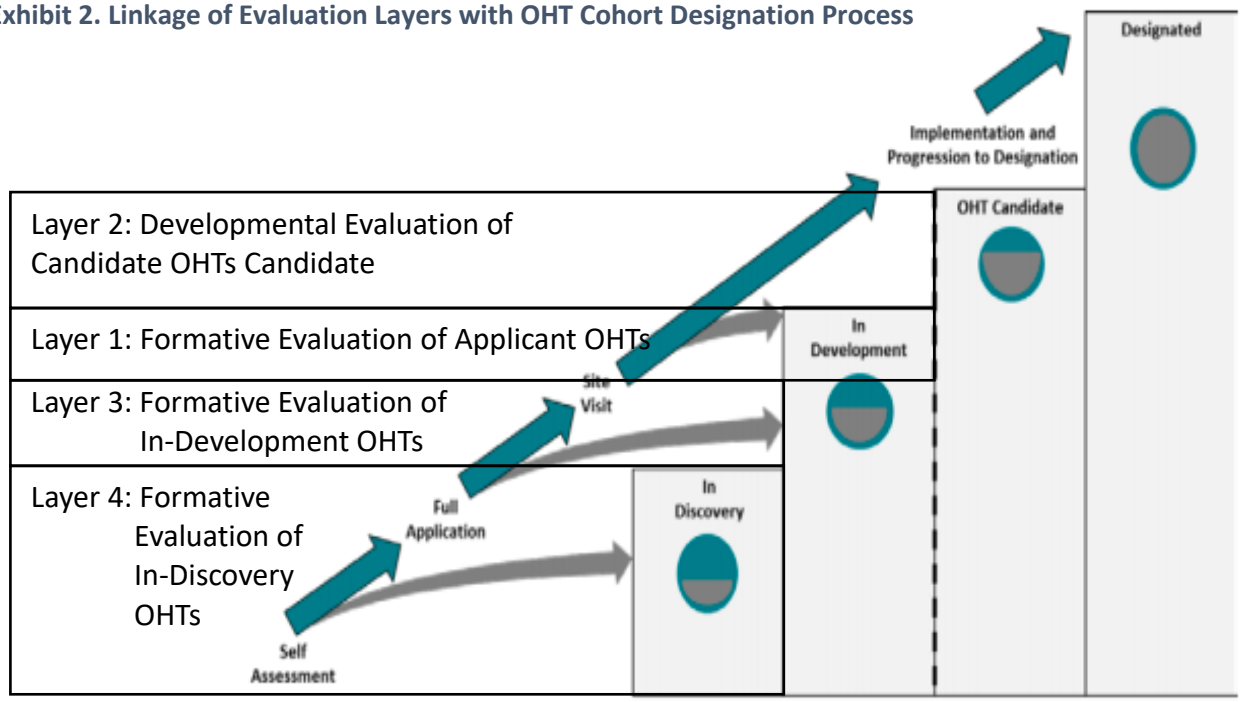


Figure 1: Readiness Assessment and Ontario Health Team Designation Process

Overview of the Evaluation Plan

Purpose:
Using a multi-method longitudinal design, this comprehensive real-time evaluation of the implementation of Candidate Ontario Health Teams (OHTs) will assess

1) whether OHTs develop and operate with the capability to achieve population-based, person-centred care,
2) whether OHTs improve patient care and health system outcomes through the first 2.5 years of OHT implementation, and
3) what works, for whom and in what context, both within and across OHTs.

The advancement of OHTs from In-Discovery phase through to In-Development phase, and to becoming an Applicant or Candidate OHT will also be examined.

Throughout the evaluation, feedback will be provided to individual Candidate OHTs about their individual and collective progress and achievement. Additionally, evaluation results will provide the Ontario Ministry of Health (MOH) with evidence of success and identify opportunities for improving the development, scaling-up and spread of OHTs to achieve full provincial coverage. Early lessons will be used to inform future expansion of OHTs.

We propose 4 layers to the evaluation, based on OHT groupings. There are Applicant OHTs, Candidate OHTs, In-Development OHTs and In-Discovery OHTs:

Layer 1. A fulsome formative evaluation of the first 30 Applicant OHTs.

Layer 2. Ongoing performance reporting using health administrative data for all Candidate OHTs. Layer 2 also consists of a concurrent, fulsome and ongoing developmental evaluation in partnership with selected Candidate OHTs from the time of approval forwards (2.5 years). A sample of 6 to 8 OHTs will be included in the developmental evaluation in order to enable sufficient personal contact between the research team and selected OHTs.

Layer 3. A lower-intensity formative evaluation will be undertaken with In-Development OHTs. In-Development OHTs include those invited to submit full applications but not selected as Candidate OHTs, as well as those identified as In-Development following the self-assessment process.

Layer 4. A very light-touch process evaluation of In-Discovery teams. This component of the evaluation will focus on those organizations that are participating in "In-Discovery" support mechanisms (webinars guidance documents etc.). Our assessment will include the value of resources and supports, and progress toward organizing into an OHT. This activity may be duplicative and unnecessary if there are other groups undertaking engagement with in-discovery teams.

The evaluation will be undertaken in two phases. **Phase 1** will encompass a formative evaluation of 30 **Applicant OHTs** (i.e., layer 1) to examine how they have come together as a team during the application process. The analysis will be undertaken in 2019/2020.

Phase 2 will encompass all four layers and continue from April 2020 through March 2022. We will evaluate how the Candidate OHTs meet expectations set for their identified target populations. We will also evaluate how the In-Development and In-Discovery OHTs transition to become Candidate or Applicant OHTs respectively.

Phase 1. Formative Evaluation of Applicant OHTs

The first phase coincides with the first wave of OHT Applicants and will be undertaken in the fall and early winter of 2019/2020. This will focus exclusively on the Formative Evaluation of the first cohort of Applicant OHTs invited by the MOH to submit full applications in October 2019. Collaboration and establishing partnerships across organizations and sectors will be critical for OHTs to successfully manage the care of populations and achieve better outcomes. Using surveys and interviews and document analyses, we will assess collaboration and partnership across the organizations in OHTs in order to understand whether and how individuals and organizations are able to build, leverage and sustain trusting relationships. We will also examine the approach to governance of OHT Applicants and in particular, 1) the involvement of clinician leadership, patients and citizens, and 2) the shared principles and goals that create the context for successful implementation.

Phase 2 Developmental Evaluation of Candidate OHTs

The second phase of evaluation will consist of the four layers summarized below and will begin in April 2020 after Candidate OHTs are announced from the 30 OHT Applicants. This phase also includes the formative evaluation of future cohorts of OHT Applicants

Layer 1: Formative evaluation of future cohorts of Applicant OHTs

In the first layer of the evaluation, we will continue *to assess the formation of additional OHT Applicant cohorts.* Additional OHT Applicants are expected to continue to apply throughout 2020 and 2021. We will follow the same survey methodology with each new Applicant cohort, with surveys sent to all Applicant members. We may also undertake interviews with selected new OHT Applicants. This will be an ongoing formative evaluation of new and emerging OHTs, and methods will follow the same process as in phase 1.

Layer 2: Developmental evaluation and performance reporting for first cohort of Candidate OHTs

The second layer includes population-level reporting of performance based on healthcare utilization data for all Candidate OHTs. We will also measure and compare with performance of attributable populations for OHTs that are not yet approved as Candidates. With relatively restricted evaluation resources, we will emphasize the developmental evaluation of Candidate OHTs in layer 2. Six to eight sites will be selected considering geographical, equity, and intervention characteristics. The developmental evaluation will *assess the implementation of proposed (or modified) application plans in the initial 6-12 months and evaluate changes in performance across a range of Quadruple Aim outcomes over the course of 2 years.* Ongoing monitoring will ensure real-time assessment of the progress Candidate OHTs are making towards operating as a fully integrated health delivery system.

Layer 3: In-development teams

For layer 3, we will work with In-Development teams. Teams are identified as In-Development two ways; 1) based on the MOH review of the 2019 self-assessment submission (n=43) or 2) teams in the 2019 Applicant pool (n=30) not selected as OHT Candidates (see Exhibit 2). We expect these teams will be invited to submit full applications in future rounds (i.e., become Applicant OHTs). In this layer, we will undertake interviews, focus groups and surveys with In-Development teams *to capture changes in their network composition (participants) and areas of focus and development of implementation/model plans.*

Layer 4: In discovery teams

In layer 4, for In-Discovery teams, we will participate in workshops and online webinars targeted to this group of providers as well as communicate closely with MOH staff to *understand how these teams are being encouraged to collaborate with others to develop new OHTs **or** participate in existing OHTs*

Study Population

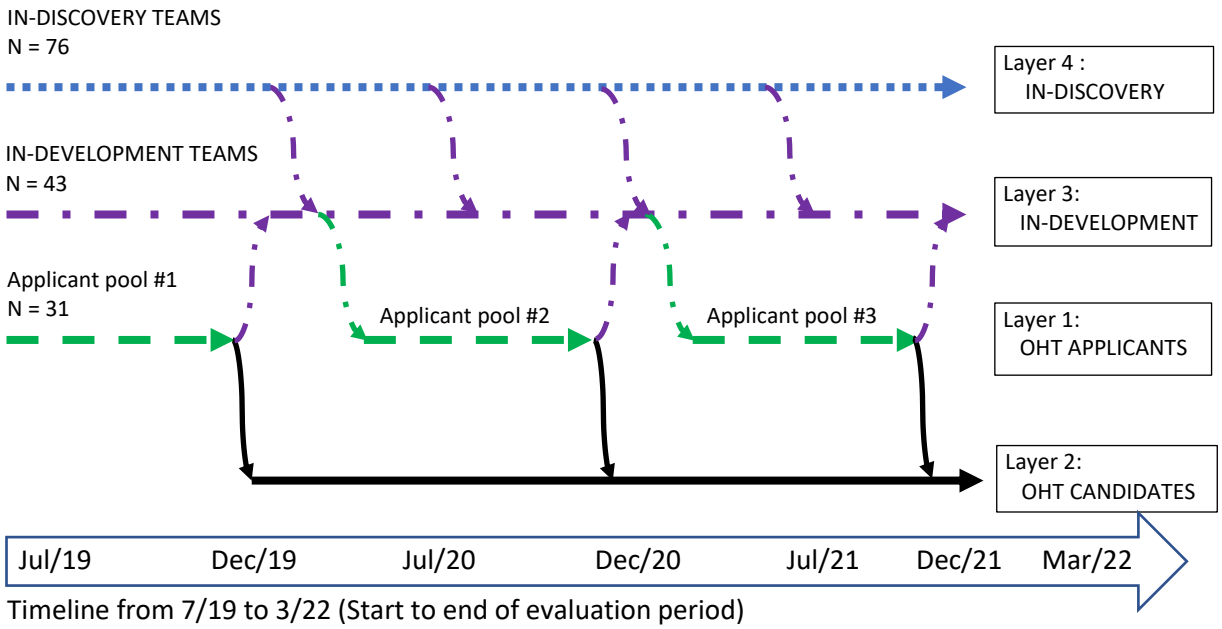
The study participants from the In-Development and In-Discovery teams will be drawn from the initial Applicants' self-assessment process (2019) and may expand and evolve through snowball sampling techniques as new members are brought into local OHT planning processes.

The sequencing of these multiple components across layers will be iterative rather than linear. It is relatively clear how Applicant and designated Candidate OHTs will proceed over the course of the first two years of implementation, but it is not clear how In-Development and In-Discovery teams are expected to progress as there are many possible routes to forming OHTs. Our evaluation process will be flexible but focused on understanding 1) how networks of providers are evolving toward OHT groupings and 2) how areas of focus for initial implementation evolve.

Exhibit 3 provides an overview of the sequencing of OHTs through the 4 levels and 4 layers of the evaluation plan. This exhibit explains the dynamic nature of the population under evaluation. In May 2019, 150 teams submitted expressions of interest/self-assessments. Of these, 76 were identified as 'In-Discovery', 43 were assessed to be In-Development and 31 assessed to be Applicant OHTs and invited to submit Full Applications (Applicant Pool #1); one OHT is a pan-regional model for children and is not included in the present description of this evaluation for resource reasons. Of the 30 Applicant OHTs included here, 24 were identified as Candidates in 2019 and 5 more in 2020; 17 others have been invited to submit full applications. Full applicant teams not named as Candidate OHTs will be designated as In-Development. Over time, some In-Discovery teams will join the In-Development teams and complete self-assessments; some will then advance to submit full applications in Applicant pool #2 or #3 (or thereafter). Of these Applicants, as with the first Applicant pool, it is anticipated that some will advance to become Candidate OHTs and others will return to the In-Development pool.

Exhibit 3. Overview of Transitions of OHTs from In-Discovery to Candidate Status

(N = number at July 2019 from initial pool of 150 team Self-assessments)



Timeline from 7/19 to 3/22 (Start to end of evaluation period)

Phase 1 – Formative Evaluation

Phase 1, Layer 1. Formative Evaluation of Applicant Ontario Health Teams

Purpose:
The formative evaluation will assess Applicant OHTs to determine

1) whether and how OHTs achieve collaboration and partnerships and
2) whether and how individuals and organizations are able to build, leverage and sustain trusting relationships.

These domains are considered to be the foundational requirements for effective population health and integrated care systems. We will assess both "hard" components like the structures, identified resources and documentation of the OHT delivery model (program logic model or driver diagram) as well as "soft" components such as the degree of shared power, trust, engagement and commitment amongst OHT Applicants.

We hypothesize this formative period is critical; this is the time when citizens and patients, providers, leaders and organizations involved in the development of OHTs forge trusting relationships. We also hypothesize investing in the process of relationship building and management is critical for OHTs to develop and achieve shared goals.

Population and Sample

The population is the 31 Applicant OHTs of which one is specialized and not included in this evaluation.

We will use a case study approach with in-depth interviews and document review conducted with 12 OHT Applicant teams. After reviewing the self-assessments of the 30 OHT Applicant teams, we selected two strata, each with two categories of Applicants to obtain a representative sample of Applicant teams. The two strata were: 1) geography (small/rural teams and large urban/suburban teams) and 2) leadership type (hospital and community/primary care).

The selection of teams within each category is proportional to the number of OHTs. Selecting 12 teams enabled us to obtain at least 2 teams within each category. Teams were selected at random within each category by assigning a random number to each team and selecting a proportional sample within each category according to the sequential random number. Specifically, we first assigned each of the 30 OHTs a random numbers using "Rand()" in excel. Second, we sorted the teams by the 2 stratification variables and the random number. Then we selected the first 2 or 6 OHTs according to the 2x2 table. The representation of these cases is indicated in Exhibit 4.

OHTs are intended to be collaborative models with shared leadership and governance. Therefore, we may not find any differences across teams in relation to application leadership type. We have nonetheless adopted a stratification by hospital leadership for two reasons: 1) Hospital or community leadership is the primary stratification upon which Accountable Care Organizations (ACOs) in the United States are evaluated and OHTs are substantially modelled on ACOs; 2) Hospital and community partners may have different capabilities to support the application development and team-building activities assessed in the Phase 1 formative evaluation.

Exhibit 4. Case study sample (and total number of Applicants)

	Applicant Organization	
Applicant Leadership	**Large Community / (Sub-) Urban**	**Small Community / Rural**
Hospital submission	Case Study Sample = 6 (Applicants = 14)	Case Study Sample = 2 (Applicants = 5)
Community / Primary care submission	Case Study Sample = 2 (Applicants = 5)	Case Study Sample = 2 (Applicants = 6)

Data Sources

Three data sources will be used in the formative evaluation: 1) **documents** including the self-assessment and full application materials; 2) a **survey** of all signatories on the 30 OHT Applicant teams; 3) **interviews** with a purposive sample of individuals within the stratified random sample of full Applicant teams.

Document Review

Document Review of all 30 OHT Applicants in the first OHT cohort (2019). The first purpose of the document review is to obtain contextual information about the OHT Applicants. An extraction template will be developed based on the information elicited from the full application to enable a codified taxonomy of information for all 30 Applicants. This information will capture information including but not necessarily limited to (full application section indicated):

- Number and type of organizations represented in the OHT application (section 2)
- Focus population for year one implementation (section 1.2)
- Extent of patient engagement in development of application (section 2.10)
- Extent of public engagement in development of application (section 2.10)
- Governance structure (section 4.2)
- Performance measures (section 3.1)

In addition, in order to avoid factual questions during interviews, for which information is already available, and to contextualize information obtained in the interviews, additional information will be extracted and synthesized for the 12 case study sites. This information will be in text form rather than a codified taxonomy to enable retention of more qualitative information. The information will include:

- OHT history of working with partners (section 2.4)
- Rationale for selection of the initial target OHT population (section 1.2)
- Plan for patient engagement in implementation (section 3.2)
- Plan for provider engagement in implementation (section 3.2)
- Plan for expansion of OHT beyond initial population (section 1.2)
- Essential components of new approach/model/pathways for care (section 3)
- Capability and approach for sharing clinical information across partners (section 4.3)
- Implementation plan (section 6.1) and Change management plan (sections 6.2 & 6.4)
- Identified strengths and limitations of application (section 6.6)

Surveys

Surveys will be distributed to all signatories of OHT full application submissions.

Survey Sample and procedure

The evaluation requires an equitable and common pool of respondents for surveys. While many individuals who are not signatories to the applications will have been involved in the preparation of the proposals, the signatories identified in section F of the full application (see Appendix F) would have been central in the decision to participate, and represent the range of organizations included in the OHT applications. Their knowledge of the application process will be highly indicative of the process of application development. Recruitment will follow the following process:

1. The MOH will send emails to each OHT on our behalf, with a letter outlining the purpose of the formative evaluation and requesting contact information of all signatory Applicants to be provided within one week. The letter will identify whether the team is being contacted as a participant for surveys only or for both survey and interviews (detailed below).
2. Two webinars will be held one week after the MOH letter is distributed. The first will include all Applicant teams, and the second will include the 12 Applicant teams selected for case studies. At these events, the evaluation team will explain the purpose, content and use of the surveys and interviews (see below) and respond to any questions relating to these components of the evaluation.
3. An email invitation will be sent to all signatory Applicants within 3 weeks after the submission of the full application with an individual links to the survey. Respondents will be requested to complete the survey 2 weeks after the distribution of the invitation.
4. A reminder will be sent to non-respondents after one week. Further follow-up with non-respondents will begin after the identified deadline, every 3 days for a total of up to 4 follow-up reminders. The survey home page will enable respondents to opt-out of the survey to avoid re-contacting individuals who do not wish to participate in the survey.

Survey Content

The survey is for signatory partners and is expected to take 15 minutes to complete, in order to obtain the highest level of participation possible. The survey captures the early phases of the team building and organization to deliver comprehensive care to the initial focus populations. The focus for the survey is to assess the success of the OHTs in developing a common vision, a collaborative process and a clear inclusive process as well as suitable resources, quality improvement practices, leadership, communication, and readiness for organizational change required to advance the OHT initiative. Two pilot tests of the survey with individuals involved in the development of OHT applications but who were not signatories, indicated that the current survey required 10-15 minutes to complete. The content for the survey is drawn largely from the Context and Capabilities for Integrated Care case-study guide leadership survey prepared by the Health System Performance Research Network, following the implementation of Health Links coordinated care initiative in Ontario and published in the International Journal for

Integrated Care[2,3] and the Evaluation and the Health Professions journal.[4] The surveys were subsequently used for an international study of integrated care. The surveys were found to have strong internal consistency and reliability of individual scales as well as discriminant validity between the two populations based on analysis of 200 survey respondents. A draft survey instrument is included as Appendix A. This survey is an abridged version of the original, to reduce respondent burden.

Key informant interviews

Key informant interviews will be undertaken with a purposive sample of 8-12 representatives amongst 12 selected case study full application teams. Interviews will be conducted one-on-one and will be approximately an hour in length. Each OHT will be assigned a designated lead contact from the evaluation team who will follow up with individual OHT teams as necessary and determine local preferences for interview scheduling.

Interview Sample

The purposive selection of key informants for interviews will be informed by local OHT teams. Teams will be asked to identify individuals occupying the following positions: a) representatives from hospital, home and community care, and primary care sectors, b) a patient/caregiver representative, if OHTs feature a patient advisor/ advisory body c) representative experts of target populations chosen for the first year d) other individuals deemed by the OHT to have played a significant role in the conceptualization and development of the OHT (e.g., project coordinators, new roles created, etc.). Key informants may therefore not be restricted to the signatories to the applications included in the surveys alone, as we aim to include a range of individuals with access to different types of knowledge, and who may have different experiences of OHT development.

Interview Content

The purpose of the interviews is to uncover the approaches used within and across OHTs to develop OHT proposals, and to understand ***how*** the various constituents have come together to create a cohesive initiative (or why a cohesive initiative remains elusive). Seven topics will be included in the interviews with varying emphasis depending on the primary respondent: Preparation & Objectives (readiness, vision); Partnership & Leadership (partnership, roles, leadership); Model & Pathway (how will care change); Provider & Patient Involvement; Communication/ Clinical Information Sharing (how patient data is/will be shared); Financial Matters (ability to manage finances, funding changes); Overall Reflections. A sample interview guide is included (Appendix B1). Because patients or caregivers involved in the planning may have different expectations, responsibilities and experiences, a distinct interview guide was prepared for patient participants (Appendix B2).

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[2] Evans JM, Grudniewicz A, Baker GR, Wodchis WP. Organizational Context and Capabilities for Integrating Care: A Framework for Improvement. Int J Integr Care. 2016 Aug 31;16(3):15. doi: 10.5334/ijic.2416. https://www.ijic.org/articles/10.5334/ijic.2416/

[3] Evans J, Grudniewicz A, Steele Gray C, Wodchis WP**,** Carswell P, Baker R. Organizational Context Matters: A Research Toolkit for Conducting Standardized Case Studies of Integrated Care Initiatives. IJIC Special Collection: iCOACH. 2017 Jun 27; 17(2):9. https://www.ijic.org/articles/10.5334/ijic.2502/

[4] Evans JM, Grudniewicz A, Baker GR, Wodchis WP. Organizational Capabilities for Integrating Care: A Review of Measurement Tools. Eval Health Prof. 2016 Dec;39(4):391-420. Epub 2016 Sep 22. https://doi.org/10.1177/0163278716665882

Phase 1 Analysis

Analysis of Applicant Survey Data

The survey data will be analyzed to first confirm the comprehensibility and perceived relevance of the survey by examining the degree of responses and completion rates. Factor analysis will be used to determine whether prior scales are substantiated in this new context. If scales are substantiated, then individual items will be collapsed into scales for each respondent. Our prior use of these surveys suggests that scales will be substantiated, however the reduced length of the survey may affect our prior results. If scales cannot be substantiated, then individual items selected with the greatest dispersion in response categories will be analysed. This presumes that the dispersion is reflective of diversity in Applicant OHTs and will enhance the discriminant capability of the survey items. Two measures will be taken for either selected items or scales: 1) average team scores will be calculated from scales or proportion of respondents for each response level for selected items; 2) variability in responses within teams. Individual OHT average scores will be compared to the overall OHT population average and the individual OHT variation in scores will be compared to the overall OHT population variation in scores. We will further examine whether team scores across different scales are similar. We will explore options such as spider plots to describe strengths and weaknesses of individual teams and to determine whether there are archetypes or clusters of teams with similar outcomes. Overall results will be compared across sampling strata (geography and Applicant leadership type) as well as other characteristics derived from document analysis (e.g., past collaboration).

Individual teams will be provided full details of their own aggregated survey scores in comparison to other Applicant teams and the overall OHT population. These data will be provided to teams at least one week prior to any dissemination to the MOH.

Analysis of Applicant Interview Data

The interviews will be audio-recorded and transcribed verbatim save for identifying information (e.g., names), which will be replaced with pseudonyms or a unique identifying code. We will not attribute quotes to any specific individual by name and full transcripts of interviews will only be available to the research team. Our planned analytical approach is based on our prior analysis of integrated funding models in Ontario.[5]

We adopt a realist approach to analysis as it is anticipated that context will have a substantial influence on the types and forms of integration as well as the processes of OHT development. The mechanisms themselves as well as the target improvements and outcomes may also vary depending on existing structures and culture in place, participants' vision for the OHT, target populations and improvement foci. A realist approach is well suited to analyzing a complex health care intervention such as integrated care, involving multiple actors and nonlinear processes that require careful attention to context, mechanisms and impacts.[6] It is not a methodological procedure so much as a "logic of inquiry" that

[5] Embuldeniya G, Kirst M, Walker K, Wodchis WP. The Generation of Integration: The Early Experience of Implementing Bundled Care in Ontario, Canada. The Milbank quarterly. 2018;96(4):782–813. doi: 10.1111/1468-0009.12357. https://onlinelibrary.wiley.com/doi/full/10.1111/1468-0009.12357

[6] Kirst M, O'Campo P. Realist review and evaluation: what do we know about what works? In: Albert SM, Burke JG, eds. *Methods for Community Public Health Research: Integrated and Engaged Approaches*. New York, NY: Springer; 2014.

attempts to answer the question, "what works for whom and in what circumstances;" it is an exercise in "'thinking through how a programme works."[7] Despite the lack of prescribed steps, realist evaluations typically have an explanatory focus, include mixed methods, and examine context-mechanism-outcome configurations that are iteratively tested and refined.[8] While our approach is informed by realist scholarship, we will adopt a nuanced approach to context and mechanism that regard them as inextricably linked expressions of the other that overlap and flow into other contexts and mechanisms. We will present our data as OHT-specific case studies that typify specific mechanisms and also show how other initiatives relate to the concept being investigated.

Analysis will be undertaken by the four qualitative researchers who will conduct the interviews. We will repeatedly read the transcripts to create open codes, which will then be grouped into categories that may be continuously amended as their latent meanings are explored. Using NVivo 11?, we will iteratively use content analysis[9] to identify key themes. During this process, transcripts for each OHT will be read and coded together to form a preliminary understanding of the unique context-mechanism configurations at work within the OHT. We will use a universal coding scheme, with certain codes being more pertinent to specific OHTs. Both the interviews and the analysis will be conducted by experienced qualitative researchers who will meet weekly to discuss progress with interviewing and analysis and to share ideas on areas for further investigation. They will also frequently confer with the larger team to elicit feedback while coding. In order to validate our themes, we will also present preliminary results to OHT participants and the MOH.

We will use first-order codes as preliminary data holders to organize the data (e.g., program context, challenges, facilitators, perceived impact), with second-order codes fleshing these out in greater detail. Deconstructing the data in this way will allow us to assess the extent to which programs shared specific themes. We will follow this with a process of holistic, context-sensitive reconstruction, driven by a realist evaluation approach.

Individual teams will be provided with summaries of key findings related to their individual OHT, based on interviews one week prior to dissemination with the MOH. Online (e.g., Zoom) meetings will be scheduled to debrief teams and elicit feedback.

Exhibit 5. Overview of Evaluation Components. Phase 1 (November 2019-March 2020)

Population	Sample	Frequency	Measurement	Output
Phase 1, Layer 1. Formative Evaluation of Applicant Teams				
30 OHT Applicants	All Signatories	Once per application	Context Survey	Level and variability of teams' capability to implement integrated care
12 Selected Case Study OHT Applicants	Key Informants	Once per application	Interview	Individual profiles of OHTs; cross-OHT identification of "what works for whom and in what circumstances"

[7] Pawson R, Tilley N. *Realist Evaluation*. Monograph prepared for British Cabinet Office. London, England; 2004. http://www.communitymatters.com.au/RE_chapter.pdf

[8] Salter KL, Kothari A. Using realist evaluation to open the black box of knowledge translation: a state-of-the-art review. *Implementation Sci*. 2014;9(1):115. https://implementationscience.biomedcentral.com/articles/10.1186/s13012-014-0115-y

[9] Elo S, Kyng¨as H. The qualitative content analysis process. *J Adv Nurs*. 2008;62(1):107-115. https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1365-2648.2007.04569.x

Phase 2 – Developmental Evaluation

Phase 2. Level 2 Evaluation: Developmental Evaluation of OHT Candidates.

> ***At the time of designing this developmental evaluation we do not know: 1) the Candidate OHTs that will be included in the Developmental Evaluation; 2) their target populations of interest and focus for year 1; 3) the interventions to be implemented to improve care for the target populations; or 4) the outcomes specific to the selected OHTs, their target populations, and interventions to be implemented. The developmental evaluation approach outlined below therefore provides an evaluative structure that will be developed as specificities emerge.***

Phase 2 Layer 1. Ongoing Formative Evaluation of Applicant OHTs

Layer 1 of the evaluation will continue to refer to formative evaluation of teams invited to submit full applications to be considered for OHT candidacy. We will continue to assess additional teams that are invited to submit full applications following the exact protocols as in Phase 1 over the course of the next 2 years. All signatories from all Applicant teams will continue to receive surveys upon submission of their full application form using the same methodology as described for Phase 1 above. Depending on the number and nature of newly emerging OHTs, we may undertake additional case study interviews.

Phase 2 Layer 2. Developmental Realist Rapid-Cycle Evaluation of *Implementation* in Candidate Ontario Health Teams

A longitudinal developmental and realist evaluation approach will be undertaken with Candidate OHTs as they begin the implementation of their OHT. Our approach is developmental because the teams are expected to be evolving rapidly over time and our intent is that the evaluation data are presented in a timely manner throughout to guide iterations, pivots and small tests of change. We adopt a realist approach, given its focus on "what works, for whom and in what circumstances," and its potential for providing insight into the processes and contexts thatlead to improved care and outcomes. Rapid-cycle quarterly reporting will be undertaken with quantitative measures drawn from administrative data.

Example Evaluation Questions include:

1. To what extent and how are OHTs able to achieve trusting relationships amongst providers and overall provider experience in regard to year 1 populations?
2. How are OHTs improving patient experience?
3. To what extent is integration of care (clinical and other) achieved amongst providers involved in year 1 activities of the OHT?
4. To what extent are OHTs able to successfully identify and improve care and outcomes for year 1 target populations?

Exhibit 6 provides an overview of the entire evaluation plan for the sample population, data collection and measurement domains and outputs for each component of the evaluation.

Exhibit 6. Overview of Evaluation Components. Phase 2 (April 2020-March 2022)

Population	Sample	Frequency	Measurement	Output
Phase 2, Layer 1. Formative Evaluation of Applicant Teams				
OHT Applicants	All Signatories	Once on application	Context Survey	Level and variability of teams
Selected OHT Applicants	Key Informants	Once on application	Interview	Individual OHT profiles; cross-OHT identification of "what works for whom and in what circumstances"
Phase 2, Layer 2. Developmental Evaluation of OHT Candidates				
OHT Candidates	Providers + managers for target populations	Annual	Context Survey; Provider Experience Survey	Level and variability Provider Experience & Implementation Outcome
OHT Candidates	Providers + managers for focus program areas (target patient populations)	Annual	Interview	Profiles and Archetypes of OHTs
OHT Candidates	Target Patient Populations	Quarterly	Health Administrative Data Analysis of Population Health and Cost	Patient Population Outcomes & Cost
OHT Candidates	Target Patient Populations	Quarterly	Patient Experience Survey	Patient Experience Outcomes
Phase 2, Layer 3 & 4. Formative Evaluation of In-development & In-discovery teams				
In-development Teams	Key Informants	Semi-Annual	Survey, interview & focus groups	Progress toward application status
In-discovery Teams	Key Informants	Semi-Annual	Survey, interview & focus groups	Progress toward application status

A developmental evaluation accommodates the complexity of implementing an OHT and appreciates that the implementation itself is an adaptive and dynamic system change with a high degree of complexity and uncertainty. Our approach to developmental evaluation will assess what changes are undertaken, what is being implemented and how this is perceived by stakeholders including leadership, providers and patients and caregivers. Measurements will reflect the Quadruple Aims of health care experience, health outcomes, provider experience and cost. All results from each component of the evaluation will be provided to OHTs to help inform decision-making. We will also provide ongoing information to the MOH regarding the implementation of the individual OHTs and aggregate OHT initiatives. While some developmental approaches recommend deep immersion of the evaluators within the intervention setting, our limited resources will allow us to undertake only moderate immersion of the evaluators within the intervention setting. An individual contact from the evaluation team will be identified for up to 3 Candidate OHTs and will collaborate closely with the lead contacts for the evaluation and liaise closely with internal evaluation capabilities within the OHT. This individual will work closely with the teams to share evaluation results in context and provide a resource for activities such as rapid-cycle tests of change and local indicators for testing such iterations.

The initial set of Candidate OHTs is currently 29 and expected to expand. All OHT candidates will be included in components of the evaluation based on data drawn from administrative or existing survey data. Selected OHTs will be included in qualitative research. The developmental evaluation approach that will be used in this evaluation requires many interactions between the research team to develop trusting relationships and to observe the actions and approaches used by the OHTs. We expect that each case requires at least half-time interaction and so we are limited in resources to support between 6 and 8 OHTs for our developmental evaluation. We will pursue a purposive sample to undertake fulsome developmental realist evaluation while including all teams in aspects of the rapid-cycle components of the evaluation with relatively low burden of implementation (e.g., online patient and provider surveys and secondary analysis of health administrative data).

Context

The context for the OHT implementation for each Candidate OHT will be drawn from information obtained from Layer 1 of the evaluation, namely the surveys summarized above in Phase 1 as well as application document review, and interviews from Phase 1. If the Candidate OHT was not a participant in the case study sample, then new interviews will be undertaken with select Applicant members following the protocols described above for phase 1.

After 1 year of operation, a subset of Candidate OHTs will be selected for follow-up surveys and interviews amongst application signatories to investigate changes in vision, partnership, leadership and governance within the OHT.

Mechanisms

Interviews

For phase 2, Layer 2 we will undertake interviews with the front-line managers and providers in Candidate OHTs responsible for providing care to the selected year 1 target populations. Interviews will provide a greater understanding of the operational context, but particularly the possible mechanisms responsible for successful implementation of the proposed OHT model of care. These are aimed to be complementary to leadership interviews undertaken as part of Layer 1. Interviews with providers and managers will be adapted from the Layer 1 leadership interviews to focus more on provider-specific activities (e.g., emphasis on shared pathways and approaches to care and shared clinical information). In addition, we will explore the expected essential ingredients, processes and enabling features of the model that the interviewees perceive will be most important to achieve the intended outcomes for their OHT.

The front-line managers and providers selected for interviews and surveys will be dependent upon the specific year 1 target population. These informants are expected to include clinicians, line managers and directors that were not otherwise included in Layer 1 formative evaluation.

Surveys will be distributed to all individuals identified as having a role in the delivery of care for the target population. Similarly, as in phase 1, we will employ purposive sampling to identify potential interviewees within each Candidate OHT representing clinicians and leaders from multiple organizations involved in the implementation of the OHT.

In year 2 of the evaluation, additional interviews will be undertaken with providers and managers amongst selected OHTs that expand to newly identified populations that require new groups of providers and leadership teams who manage these newly identified populations. If time and resources permit, we will also return to selected interviewees from year 1 (12 months after the first round of interviews) to re-interview original respondents to evaluate how and what has changed over the course of the first year of implementation.

Surveys

Relevant individuals having a role in the delivery of care for the target population will be identified by the OHT and their contact information (email) shared with the evaluation team for distribution of surveys. Following our prescribed case-study methodology, surveys will include many of the same questions as those included in the OHT Applicant surveys (Phase 1 formative evaluation) but with attention paid to those items most relevant to day-to-day delivery of care as well as planning of clinical pathways. Questions related to governance and external supports and engagement will be limited and captured in document review and interviews instead. Surveys will be ongoing throughout the evaluation period including annual distribution to ongoing provider participants and also adding new providers included in the models and to providers in new OHTs as they enter the OHT model over the course of the evaluation period.

As in Phase 1, Level 1, all survey results and synthesized information created from interviews will be shared with the local teams prior to any distribution to the MOH.

Additional Developmental Aspects of the Evaluation

While we do not have sufficient resources to dedicate a single evaluator embedded within each team, we will direct support and engage with the Applicant and Candidate OHTs as much possible. This will include local workshops to discuss OHT models and developmental evaluation results with each of the Candidate OHTs conducted with at least one member of the evaluation team in-person and other members of the evaluation team available either in-person or connected via skype/zoom or similar virtual technology. In addition, we will organize and participate in community-of-practice meetings, sharing data and evaluation results with multiple OHTs. One member of the evaluation team will act as a singular point of contact for teams that are involved as study sites.

Outcomes: Quadruple Aim Framework

In addition to the Context and Mechanisms information summarized above, we will assess the outcomes of the OHTs using a quadruple aim framework inclusive of patient experience, provider experience, health outcomes and cost. We address each of these below. Exhibit 7 provides a very high-level overview of example measures that will be used to measure the Quadruple Aim outcomes in the developmental rapid-cycle realist evaluation.

Exhibit 7. Quadruple Aim Framework and Example Measures

Patient Experience **(example measures)** • Thinking about ALL the people you saw in ALL different places you went for your care, is there one who ensures the follow-up of your health care? This could be a physician, nurse practitioner, other health care provider, family member, friend, or someone else. • How well do you feel your health care providers understand your health needs? • How difficult is it for you to access the health care and other non-health care services that you need to maintain your health? • How organized would you say ALL your health care is?	**Provider Experience** **(example measures)** • Rate your control over your workload • Overall, based on your definition of burnout, how would you rate your level of burnout • Receive patient lists or registries e.g., with specific clinical conditions • How often do you know about all the visits that your patients make to other physicians/providers? • I can rely on the other people in this practice setting to do their jobs well
Health Outcomes **(example measures)** • Rate of hospitalization for ambulatory care sensitive conditions • Hospital stay extended because the right post-acute services not ready • 30-day inpatient readmission rate	**Cost** **(example measures)** • Total health care expenditures

Patient experience measurement

The only way to assess whether OHTs are achieving patient-centred care is to directly engage with patients and caregivers to gather this information. We propose that patient experience survey data be collected in a consistent and standardized way across a sufficient sample in all OHTs. There is as of yet no specific mandated approach to this measurement and it is unclear that it is technically feasible to create representative patient registries within each OHT that could be shared with the evaluation team to distribute patient surveys. The identification of eligible target patients using health administrative data does not allow for the re-identification of patients for any purpose including to distribute a patient experience survey.

In the interim we propose a two-fold approach. First, we have identified a set of patient experience questions that are based in sound empirical literature regarding the aspects of care that are most important to patients and caregivers. Some of these questions have also been used as performance measures for Accountable Care Organizations in the United States and related integrated care or population-based improvement initiatives. Second, we have worked to establish a means to measure these questions through the Ontario Health Care Experience Survey (HCES). The HCES is a continuous provincially representative survey with over 90% of respondents agreeing to allow linkage to health administrative data. The survey data is housed at ICES, the provincial repository of health administrative data, alongside all other health administrative data that will be used in the present evaluation.

The HCES data is not sufficient to measure patients within the target population of a single OHT; however, it could then be used to create provincially representative samples of patients who meet eligibility/target population criteria from OHTs. This approach provides a useful comparison point for

trending general and specific population results over time that could be compared to individual OHT results from targeted surveys using the same items undertaken through another mechanism with a similar survey methodology.

This protocol assumes only patient experience data reported by Candidate OHT target population patients (potentially through a centralized online platform) will be collected and made available to the evaluation team on an individual and potentially linkable basis over time to assess individual changes in experience. Recommended questions for Patient Experience are summarized Appendix C.

Provider experience measurement

Surveys of provider experience and engagement in the Candidate OHTs will be undertaken in waves as OHTs begin to work with sets of providers to improve care for their target populations. While there are team-based measures and measures of provider engagement that have been reported in integrated care settings we are as yet unaware of any examples of measurement of provider experience that captures what is important to providers about their experience in caring for patients in an integrated system of care. Therefore, we will undertake a review of the literature to identify potential measures of provider experience and to undertake focus groups over the winter of 2020 with different providers inclusive of physicians, nurses, allied health, social work and others that might be engaged in OHT activities to co-design and test a brief survey of provider experience. Our brief review to date has identified a number of possible questions that could be used as a starter set of questions. Selected example measures are indicated in Exhibit 7 and a full starter set is shown with response options in Appendix D.

Population Health Outcomes

OHT attributable population performance data based on routinely collected health administrative data will be reported by the MOH to all participating OHT sites. The MOH has identified 18 indicators of health system performance that OHTs should consider for their measurement systems (see Appendix E). The MOH has provided each OHT with their indicator results based on their entire attributed population results for these indicators in August 2019. It is expected that the MOH will continue this approach annually.

The evaluation will use a subset of the 18 provincial performance measures and will endeavour to report these measures as applicable **at the level of the target population**. We acknowledge that many of the measures of "Population Health Outcomes" are based on health care use including hospital care. These measures are viewed as proxy measures for the health status of the patient population assuming that healthy individuals do not require intensive medical interventions.

The initial set of measures will be selected in a consultative process with patient, providers, researchers and policy makers. Measures will be identified for all OHTs and also for up to 3 of the most common target populations for OHT year 1 focus. We will endeavour over the course of the evaluation to improve our measurement of health outcomes including functional status, and self-reported health-related quality of life measures. However, these measures are not currently collected and the present evaluation does not include the resources or technological capabilities of assessing such measures at scale. Health status and Patient Reported Outcome Measures (PROMs) may be added to participant

surveys but it is not possible to implement comparator PROM measurement using the Ontario Health Care Experience Survey (HCES) at this time.

Measurement using health administrative data

The provincial performance measures and population-specific outcomes (see below) will be evaluated using data at ICES, which is a prescribe entity under the Ontario Personal Health Information and Protection of Privacy Act. Use of these data for evaluation of the health system are exempt from research ethics review. Patient demographics and eligibility are identified from the Ontario Registered Persons Database. Administrative databases, linked securely and anonymously at the level of each eligible resident, will be used to track all health service encounters paid for by the MOH. These data include admissions to hospitals using the Canadian Institute for Health Information's Discharge Abstract Database, Continuing Care Reporting System, National Rehabilitation Reporting System, National Ambulatory Care Reporting System and Ontario Mental Health Reporting System. Data from physician visits, including fee-for-service visits and shadow-billed services, as well as laboratory claims using Ontario Health Insurance Plan billings will also be used. The Home Care Database will be used to measure all unique visits by home care providers as well as the functional status captured by the Resident Assessment Instrument for Home Care, and the Ontario Drug Benefit Plan captures prescriptions dispensed to people eligible for social assistance and those aged 65 years or more. Admission, discharge and functional status will be assessed using the Resident Assessment Instrument for Nursing Homes. The data includes diagnoses, extended hospital stays, readmissions and all other data required to capture the 18 prescribed MOH indicators.

Population-specific outcomes

In addition to the generic provincial measures, we will also work with Candidate OHTs to develop aligned performance measurement and monitoring that report on the specific performance of their initial selected patient population segments. Many OHTs are expected to select similar patient populations (based on OHT self-assessments, palliative care, mental health and frail seniors are common target populations). It is expected that OHTs will begin improvement activities with selected populations. For the selected target populations, additional and potentially more sensitive measures may be appropriate. For example, total days in hospital in the last 6 months of life might be appropriate indicators for an OHT that selects palliative care patients as an initial target population.

The evaluation data will vary from the data reported by the MOH by focusing on the target populations identified by individual OHTs and by focusing on a subset of the provincial measures, enhanced by the identification of suitable local performance measures specified to identified first year (and subsequent) target populations. The selection of a subset of provincial measures is necessary to focus attention within the OHTs and to allow the addition of other measures that are highly relevant to the OHT target populations. The selection of a subset of the provincial measures is based on prior experience with integrated care initiatives and relevance to a broad array of patient populations as well as cognizance of potentially modifiable outcomes likely to impact on health outcomes. The subset of provincial measures suggested at this time is indicated in Exhibit 8 below.

Exhibit 8. Suggested set of MOH Health System Measures most relevant to OHTs across target populations

- Rate of hospitalization for ambulatory care sensitive conditions
- 7-day physician follow up post-discharge
- Hospital stay extended because the right home care services not ready
- 30-day inpatient readmission rate
- Wait time for first home care service from community
- Percentage of Ontarians who had a virtual health care encounter in the last 12 months
- Percentage of Ontarians who digitally accessed their health information in the last 12 months

Experience reporting ongoing results: patient experience & health administrative data outcomes

We have created monthly and quarterly reporting data for past evaluations of integrated funding and bundled care using routinely collected health administrative data that are available to the evaluation team and are updated on a quarterly (or more frequent) basis. A full example of our approach to feedback and reporting and ongoing evaluation is available on our website at (http://hsprn.ca/?p=260).

Cost

The MOH will provide health care cost data to the OHTs based on their entire attributed population on an annual basis. Similar to the above outcome and utilization measures using health administrative data, the evaluation will provide total system cost information based on health administrative data *specific to the target populations identified by individual OHTs*. We have developed the methods applied in Ontario for health system costing at the patient level and will employ these methods consistent with the MOH application.[10]

Analysis and Reporting

Qualitative analysis of interview data will be transcribed, coded and explored as described above for qualitative analyses of Applicant Interview Data. An identified need from the Ministry is to use the interviews to identify barriers and facilitators, learning opportunities (i.e., failures) and report on them through developmental evaluation.

Quantitative data analyses using routinely collected health administrative data (health care utilization) will be undertaken to statistically quantify changes in health care utilization and cost. In some cases, utilization may be an indicator of achievement of OHT intended activities (e.g., improved testing and management of diabetes), and in others an indicator of poor health outcomes (unplanned medical hospitalizations). Combined, all available health administrative claims data are used to measure total cost of care.

[10] Wodchis WP**,** Bushmeneva K, Nikitovic M, McKillop I. Guidelines on Person - Level Costing Using Administrative Databases in Ontario. Working Paper Series. Vol 1. Toronto: Health System Performance Research Network; July 2013. http://www.hsprn.ca/uploads/files/Guidelines_on_PersonLevel_Costing_May_2013.pdf

Our approach to analyzing health administrative data is to use individual and group-level interrupted time series with propensity-matched comparators. Individual-level measurement is preferred when the target population does not represent the entirety of the eligible population and a selection process may have affected inclusion of particular individuals in the target population. Where entire eligible populations are included in the OHT programmes, group-level interrupted time-series will be used. Matches will be drawn from comparable health regions with similar constellation of health providers and patients (e.g., tertiary hospital, physician supply, rurality, poverty). Individuals will be matched on characteristics such as age, sex, health care utilization and other potential confounders leading to the selection into or not into an OHT program. Without knowledge of the year 1 target populations it is not possible to be more specific at this point but we have used this technique in evaluating previous integrated care initiatives in Ontario including Health Links (http://cmajopen.ca/content/5/4/E753.full) and Integrated Funding Models (http://www.hsprn.ca/?p=260).

Phase 2. Layer 3 and Layer 4 Formative Evaluation of *In-Discovery* and *In-Development* Ontario Health Teams

While the developmental evaluation of the OHTs implementation is ongoing, we will simultaneously need to assess the progress of In-Development and In-Discovery OHTs toward becoming an OHT Candidate. The main focus of this evaluation will be an assessment of the needs of participants in the initial readiness assessment that did not progress to the Applicant stage (inclusive of Applicants identified as In-Discovery and as In-Development) and the supports made available to these two groups. This evaluation will be implemented in conjunction with the supports that are made available through workshops, webinars, communities of practice and other related activities. As these are still in development, the specifics of the evaluation cannot be fully specified but it is anticipated that the measures that are used in the Formative and Developmental evaluations of the Applicant OHTs as specified in Phase 1 and 2 above will be drawn on to assess progress toward readiness for implementation of OHTs. Best practices from Candidate OHTs will serve as a reference point for this ongoing assessment. Key components of this evaluation will be based on the OHT self-assessment framework or "building blocks" including domains for 1. Patient care and experience; 2. Patient partnership and community engagement; 3. Defined patient population; 4. In scope services; 5. Leadership accountability and governance; 6. Performance measurement, quality improvement and continuous learning; 7. Funding and incentive structure; 8. Digital health. These domains may evolve and adjust over time with the experience of OHTs.

Equity Considerations

We will be taking an equity lens to all our evaluation work. We will consider equity from both a team and an individual patient/population perspective. From the team perspective, our case study selection included urban/rural representation. In response to reviews, we will add a case to our formative evaluation that provides a large proportion of services to French Language patients. In addition, one formative evaluation case study involved an Indigenous-led OHT. From the individual patient/population perspective, patient-level data analyses will contrast patient outcomes across income and related measures of social marginalization.

EVALUATION LIMITATIONS

We face a number of limitations and uncertainties at the time of developing this proposed evaluation:

- The selection of OHT Candidates and the sample for our developmental evaluation of OHTs is unknown at this time.
- The types and numbers of providers involved is unknown.
- The focus and target populations for year 1 focus are unknown at this time.
- The entire evaluation across all four levels will be undertaken by a program staff comprising 4 Full-Time Equivalent staff.

i. Data Access
Some of our evaluation approaches require access to patient-level information from surveys and health administrative data. We have assumed a data collection approach will be implemented for the surveys and that we will have timely access to health administrative data through ICES where we will have employed staff. Some of our evaluation measures are aligned with MOH measurement and we anticipate full access to algorithms to ensure consistent measurement of all performance measures.

ii. Population Assumptions
A very important assumption in this evaluation is that the population included in the OHT will be identifiable using health administrative data. This will enable organizations, the MOH, and the Health System Performance Network HSPN to calculate, monitor, evaluate and report the same outcome measures for the same populations.

iii. Confidentiality
A number of our evaluation techniques will lead to disclosure of information and discussions of a confidential nature. We will have agreements specifying the absolute anonymity of all individuals *even if it means leaving out valuable information* if that information would necessarily identify an individual. This assurance applies at all levels of data reporting including patients, caregivers, providers, managers, organizational leadership and otherwise.

Ontario Health Team implementation is a complex intervention in a complex health system. We do not aim to be specific in the components or implementation activities but to assess how OHTs may be affecting patient outcomes and to describe OHT participants' activities and perceptions of success.

POTENTIAL IMPACT

This evaluation is developed cognizant of the fact that the activities undertaken in the implementation of Ontario Health Teams (OHTs) comes as a result of new legislation in Ontario that supports the development and implementation of OHTs for all Ontarians. The effect of OHTs therefore will be directly relevant to the care received by 14.2 Million residents in the province. Recent Ontario governments have also developed a track record of making policy decisions based on the evaluation results from the HSPN – the team tasked with implementing the present evaluation. For example, decisions were made to accelerate bundled payment for surgical care but not for medical hospital admissions based on the results of the Integrated Funding Model evaluation (https://hspn.ca/evaluation/integrated-funding-models/). The documentation and measurement of the outcomes of OHTs in Ontario and their progress

toward population-based and person-centered care will provide international guidance on policy-lead initiatives that encourage bottom-up development and implementation of integrated care.

Organizing for Ontario Health Teams Survey

Introduction

Welcome to the "Organizing for Ontario Health Teams" Survey. This survey asks a variety of questions about you and your organization/practice setting and its partnership in an Applicant Ontario Health Team (OHT). The questions are adapted from the "Context and Capabilities for Integrating Care Framework" which was developed and tested in the Ontario health care context.[1]

The purpose of the survey is to capture contextual factors important to integrating care, including partnerships, leadership, communication, resources, and organizational change. These data will help us better understand how well members from all sectors are working together and will be used to create OHT 'profiles'.

Individual teams will be provided with results from aggregated responses from their own team and summative responses across teams will be shared widely with an aim to strengthening the approaches to implementing OHTs.

The survey allows you to express your opinions and provide information about your experiences anonymously. Your name will not be attached in any way to the responses you give.

Throughout this survey we ask you to comment on the members of your Ontario Health Team. By "members" we mean the most involved individuals from the organizations that were represented in Section 7 of your OHT full application.

The survey will take approximately **15 minutes** to complete. Please answer every question, and please check only one answer per question.

Thank you for taking the time to complete this questionnaire.

Participant Information

1. Which of the following best describes your current role? Please select only one.

   - Board Chair/Member (excluding ex-officio members captured elsewhere)
   - Chief Executive Officer, President or Executive Director
   - Other Senior Management (COO, CFO, Vice President, Chief of Staff)
   - Administrator, General Manager, Director of Care
   - Physician
   - Patient
   - Other: Please specify _____

2. Which of the following best describes your primary place of employment?

   - Primary health care practice
   - Acute Care Inpatient hospital
   - Mental Health Inpatient hospital
   - Rehabilitation or Complex Continuing Care hospital
   - Long-term care
   - Home care
   - Public Health
   - Community support services
   - Community Mental Health services
   - Other: Please specify _____

Page Break

Partnerships

In this section of the questionnaire, we want to learn about the partnerships in your Ontario Health Team.

Please think about the people and members in your Ontario Health Team. (See definition of "members" above).

By working together, how well, at present, are the members in your OHT able to:

	Not Well At All	Not So Well	Somewhat Well	Very Well	Extremely Well
3. Include the views and priorities of the people affected by the OHT work?	OBJ 1	OBJ 2	OBJ 3	OBJ 4	OBJ 5
4. Develop goals that are widely understood and supported among members?	OBJ 1	OBJ 2	OBJ 3	OBJ 4	OBJ 5
5. Identify how different services and programs in the community relate to the problems the OHT is trying to address?	OBJ 1	OBJ 2	OBJ 3	OBJ 4	OBJ 5
6. Respond to the needs and problems of the community?	OBJ 1	OBJ 2	OBJ 3	OBJ 4	OBJ 5
7. Obtain support from individuals and organizations in the community that can either block the OHT's plans or help move them forward?	OBJ 1	OBJ 2	OBJ 3	OBJ 4	OBJ 5

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Generally, considering the current state among members participating in this OHT :

	Strongly Disagree	Disagree	Slightly Agree	Moderately Agree	Strongly Agree
8. We have a common vision of how to improve the quality of services.	1	2	3	4	5
9. We understand the role we play in taking responsibility for the local population.	1	2	3	4	5
10. We understand the role we play in coordinating care.	1	2	3	4	5
11. We have agreed to share responsibility for achieving improved patient outcomes.	1	2	3	4	5
12. We share tools for clinical coordination.	1	2	3	4	5
13. We freely share clinical information across partners.	1	2	3	4	5
14. Members have used data to identify the improvements that can be made in our target population(s).	1	2	3	4	5
15. Members are prepared to question the basis of what the team is doing?	1	2	3	4	5
16. We critically appraise potential weaknesses in what our OHT is doing in order to achieve the best possible outcome?	1	2	3	4	5
17. The members of the OHT build on each other's ideas in order to achieve the best possible outcome	1	2	3	4	5

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Leadership

In this section of the questionnaire, we want to learn about the leadership in your Ontario Health Team.

When answering the questions about leadership, please think about **all** of the people who may or may not hold formal positions of authority, but you view as individuals who have been essential to moving the OHT forward by championing the initiative, and **rate the *total effectiveness* of your OHT's leadership at present in each of the following areas:**

	Poor	Fair	Good	Very Good	Excellent
18. Empowering people/members involved in the OHT	OBJ 1	OBJ 2	OBJ 3	OBJ 4	OBJ 5
19. Communicating the vision of the OHT	OBJ 1	OBJ 2	OBJ 3	OBJ 4	OBJ 5
20. Creating an environment where differences of opinion can be voiced	OBJ 1	OBJ 2	OBJ 3	OBJ 4	OBJ 5
21. Helping the OHT be creative and look at things differently.	OBJ 1	OBJ 2	OBJ 3	OBJ 4	OBJ 5
22. Fostering respect, trust and inclusiveness in the OHT.	OBJ 1	OBJ 2	OBJ 3	OBJ 4	OBJ 5

Communication

In this section we want to learn about communication in your Ontario Health Team.

Please rate the effectiveness of your OHT in carrying out the following activities:

	Poor	Fair	Good	Very Good	Excellent
23. Communicating among members.	OBJ 1	OBJ 2	OBJ 3	OBJ 4	OBJ 5
24. Organizing OHT member activities, including meetings and projects.	OBJ 1	OBJ 2	OBJ 3	OBJ 4	OBJ 5

Resources

In this section we want to learn about financial and non-financial resources needed for Ontario Health Teams to work effectively and achieve their goals.

For each of the following types of resources, to what extent does your OHT have what it needs to work effectively?

	None Of What It Needs	Almost None of What It Needs	Some Of What It Needs	Most Of What It Needs	All Of What It Needs	Don't Know
25. Skills and expertise (e.g., leadership, administration, evaluation, law, public policy, cultural competency, training, patient engagement, community organizing)	OBJ 1	OBJ 2	OBJ 3	OBJ 4	OBJ 5	OBJ 6
26. Data and information (e.g., statistical data, information about community perceptions, values, resources, and politics)	OBJ 1	OBJ 2	OBJ 3	OBJ 4	OBJ 5	OBJ 6
27. Ability to identify individual patients who meet target population criteria and deliver prescribed interventions	OBJ 1	OBJ 2	OBJ 3	OBJ 4	OBJ 5	OBJ 6
28. Connections to political decision-makers, government agencies	OBJ 1	OBJ 2	OBJ 3	OBJ 4	OBJ 5	OBJ 6
29. Money	OBJ 1	OBJ 2	OBJ 3	OBJ 4	OBJ 5	OBJ 6
30. Tools and technologies such as shared clinical information portals, digital health solutions etc.	OBJ 1	OBJ 2	OBJ 3	OBJ 4	OBJ 5	OBJ 6

Organizational Change

The implementation of Ontario Health Teams involves changing how organizations, practices, professionals, patients and families work together.

In this section, we want to learn about your attitudes towards the changes that have taken place and/or the changes that have yet to occur. We also want your assessment of how these changes affect you and your organization/practice setting.

31. **How you would describe your organization or practice setting's attitude toward change?**

- OBJ Resistant to change
- OBJ Cautious toward change
- OBJ Open to change
- OBJ Innovative

Please think about the changes involved in creating your OHT.

To what extent do you agree with the following statements?

	Strongly Disagree	Disagree	Slightly Agree	Moderately Agree	Strongly Agree
32. Your organization's/ practice setting's shared VALUES are compatible with those of other members in your OHT.	OBJ 1	OBJ 2	OBJ 3	OBJ 4	OBJ 5
33. Your organization's PROFESSIONALS/STAFF have a strong sense of belonging to your OHT.	OBJ 1	OBJ 2	OBJ 3	OBJ 4	OBJ 5
34. I think that my organization/practice setting will benefit from this change.	OBJ 1	OBJ 2	OBJ 3	OBJ 4	OBJ 5
35. This change will make my job easier.	OBJ 1	OBJ 2	OBJ 3	OBJ 4	OBJ 5
36. In the long run, I feel it is worthwhile to adopt this change.	OBJ 1	OBJ 2	OBJ 3	OBJ 4	OBJ 5

37. I have the skills that are needed to make this change work.	OBJ 1	OBJ 2	OBJ 3	OBJ 4	OBJ 5
38. This change will disrupt many of the working relationships I have developed.	OBJ 1	OBJ 2	OBJ 3	OBJ 4	OBJ 5

Summary

In this section of the questionnaire, we want to get a sense of your overall impression of your OHT.

Generally, in this OHT:

	Strongly Disagree	Disagree	Slightly Agree	Moderately Agree	Strongly Agree
39. We have a 'we are in it together' attitude	OBJ 1	OBJ 2	OBJ 3	OBJ 4	OBJ 5
40. We take the time needed to develop new ideas	OBJ 1	OBJ 2	OBJ 3	OBJ 4	OBJ 5

41. **To what extent do you think your OHT's objectives can actually be achieved?**

Not At All	Minimally	Somewhat	Mostly	Completely
OBJ 1	OBJ 2	OBJ 3	OBJ 4	OBJ 5

42. **Is there anything you would like to add that was not covered and you feel is important to share?**

Appendix B

B 1. Formative Context Interview Guide for Organizational Leaders

Interview guide to be tailored to interview candidate and role; i.e., interviews will privilege questions relevant to interviewee's area of expertise

Interview Guide – Key Stakeholder Interviews

Hello, my name is [interviewer's name] and I am a researcher from the Health System Performance Network. We scheduled an interview for today to learn about your experience as someone who helped shaped the [name] Ontario Health Team (OHT). I will be asking you for your perspective on how the OHT was formed, the extent to which partners work well together, what work was involved in bringing everyone together, what is going well, and what challenges have been faced along the way. We are particularly interested in any stories and anecdotes that you can share about this early journey, as they often capture what people remember as important. I would therefore encourage you to tell us about specific incidents, interactions with patients or colleagues, or even your own personal experience as a patient or caregiver that may be relevant to this work.

We sent you an information letter about this research and your rights as a participant, but as a reminder, we are recording today's conversation, and you will remain anonymous. Do let me know if any questions are not relevant to you. You can choose to stop the interview at any time. Do you have any questions for me, before we begin? [Address questions]

Do I have your consent to participate in the interview?

Do I have your consent to record the interview?

Role

1. Please describe your position and role within your organization.
   Probes: When did you join [organization]? Have you been involved in health system reform in any way?
   a. What has your role been specifically in relation to the OHT model?

Preparation & Objectives

2. In your opinion, why did [organization] want to become part of an OHT?
   a. What was the motive? What are the goals the team hope to achieve?
      Probe: Are there any advantages to being an early adopter?
3. Do you think [your organization] is ready to be part of an OHT?
   Probes: What makes you feel that way? Did you personally feel ready for this new model?
   a. Does [organization] have previous experience with integrated care initiatives similar to the OHT approach?
4. Can you describe what [organization] has done in preparation for implementing [OHT program]?

a. Was there anything that was particularly helpful during this time in helping you prepare for OHT implementation? Were there any resources that you found particularly helpful?
b. Was there anything that was not done, or could have been done better to help you along the journey to becoming an OHT?
c. Was there anything that was done that you believe could have been left out?

5. Would you say that there is a clear vision for your OHT? What is the vision for your OHT?
    a. How was this vision developed?
    b. To what extent is this vision shared amongst all organizations in the OHT?

Partnership & Leadership

6. How did partner organizations come together?

    Probes: Who/ what brought you all together? What did that process look like? Was there any reluctance from any organizations, and what were their concerns?
    a. As lead organization, what is [lead org's] role (e.g., in charge of reporting; coordinating funds, etc.?)
    b. Are there any organizations with whom you are working with for the first time? What is going well, and what challenges do you face?
        a. Has your relationship with member organizations you have worked with in the past changed as a result of working together to form an OHT? (Probe for examples)
    c. What are some of the key differences between member organizations, and do these differences challenge your ability to work with each other (e.g., size, resources, sectoral differences) ? How are they overcome?
    d. Are there any missing partners?

7. We're interested in understanding how partners across organizations work together [administratively or clinically, depending on participant]. How have decisions been made so far in the OHT? (Probes: Is decision-making shared? Do some organizations carry more weight than others?)
    a. Are you satisfied with the level of collaboration across organizations? Could you think of an example of what collaboration looks like on the ground?

        i. What has helped to foster collaboration? (Probe: How transparent is decision-making?)

        ii. How can collaboration be further fostered?

    b. [If not addressed above] Do you think there is trust among OHT members?
        (Probes: Could you give me an example of what trust looks like on the ground? What has helped in fostering trust? Does any work remain?)
    c. Is there a story or anecdote that comes to mind that captures what working together to design/ implement the OHT program has been like for you? For instance, you could talk about a challenge that you faced and how it was resolved – or not resolved.

8. In your opinion, who have been the most important people driving forward the OHT model?
    a. What has their role been? (Probes: What is their/ your leadership style? E.g., Is collaboration encouraged, and if so what strategies have been used to foster it?
    b. Has the OHT faced any leadership-related challenges?

Model & Pathway

9. [This OHT] chose to focus on [population/s]. How was this patient population identified?
    Probes: Who was involved in these decisions? What criteria were used (e.g., cost, need, equity).
    a. Did you face any challenges with identifying the population?

10. Is there ongoing discussion and debate about the design of pathways and services amongst the different member organizations? About the process of implementation?
    a. What are the key issues that have come up in relation to designing pathways and deciding which services to include?
        i. How did the team decide on what sectors/ services to include?
        ii. How does/will each partner contribute to the delivery of care?
        iii. How is accountability shared?
    b. At what stage of implementation is the OHT? (Probe: Is the OHT on track for full implementation as originally envisaged?
    c. Is the OHT harnessing any community resources?
11. What are the key differences in how patients [will] experience care as part of an OHT versus their previous experience of care? [i.e., How will care be structured/ provided differently?]
    a. To what extent can pathways be tailored to the individual patient?

12. How is care coordinated/ will it be coordinated? Could you start by telling me what care coordination means to you?
    a. Is care coordination done differently for the OHT, compared to how it was before? (Probe: Was a new position created or are existing providers taking on aspects of coordination?)
    b. Who coordinates care? (Probes: Was a new position created or are existing providers taking on aspects of coordination?)
    c. Are you satisfied with the plan to coordinate care? Are there any gaps that need to be addressed?

Provider & Patient Engagement

13. Were patients/ caregivers involved in designing your OHT, or in any other way? How?
    a. Who was approached? How were they identified?
    b. What have their most significant contributions been?
    Probes: (as needed) From your perspective, what made it challenging to include patient perspectives? What helped?

14. Were physicians/ clinicians included during OHT development? What did the process of engaging them involve?
    a. Who have you reached out to? Are you satisfied with the engagement of primary care? What remains to be done?
    b. How receptive have clinicians/ physicians been to the OHT initiative? Have they voiced any concerns?

Communication/ Clinical Information Sharing

We are interested in understanding how readily individuals and organizations are able to share clinical information.

15. How do clinicians typically communicate with each other about patients? (Telephone? IT platforms?)
    a. Are clinicians able to share patient data to their satisfaction?
16. What, if anything, is going well, as it relates to data-sharing? What has helped you get there?
    a. Are there any sectors or organizations between which information sharing is particularly challenging? What are some of the key issues that have surfaced?
    b. Are there any new systems or processes of information-sharing that have had to be learned/ adopted as the team plans for OHT implementation? Probes: How is this going? How receptive have front line staff been to these changes?]
    c. [If not articulated in OHT application] Do you have plans for any digital health innovations going forward?

17. Are there any other types of data that need to be shared to facilitate the OHT model? (Eg. organizational or population-level data shared).
    a. How easily can this information be shared? Probe: What needs to happen to facilitate sharing these data?

Financial Matters

18. How has your OHT team been financed to date? Probe: Is In-kind time and resources of all partners equal?
    a. Describe any changes in how care for [OHT population] was funded previously versus under the OHT model.
    b. Are you satisfied with your ability to track patients across organizations/ sectors for the purpose of financial reconciliation?

Evaluation

19. What do you think are the most important things to evaluate in relation to the OHT model? [Whether externally or internally]

Reflection

20. Is the OHT approach a promising model? A sustainable one?

a. What do you like about it?
b. What concerns do you have? Probe: Is there anything specific to your geography, patient population, etc. that causes concern?
    i. Is the targeted patient population a good choice for the OHT approach in your opinion? Why/ why not?
c. Has the OHT initiative required any additional resources (e.g., for new roles, systems)? How has this been funded?

21. Reflecting on the last few months, is there something you are particularly proud of accomplishing (personally, as an organization, or as an OHT)?

22. What have been your greatest challenges?
    a. What have the main sources of resistance or push back been? How has the team negotiated this?
    b. Are there any lessons learned, or any insights you would like to share with other teams beginning the process of forming an OHT?

23. Is there anything you'd like to touch on that we have not spoken about?

24. Is there anyone else who has played a key role in shaping your OHT that you would recommend we interview?

B 2. Formative Context Interview Guide for Patient Team Members

Interview Guide – Key Stakeholder Interviews - Patient Version

Hello, my name is [interviewer's name] and I am a researcher from the Health System Performance Network. We scheduled an interview for today to learn about your experience as someone who helped shape the [name] Ontario Health Team (OHT). I will be asking you for your perspective on how the OHT was formed, what work was involved in bringing everyone together, what is going well, and what challenges have been faced along the way. We are particularly interested in any stories and anecdotes that you can share about this journey, as they often capture what people remember as important. I would encourage you to tell us about specific incidents, impressions, and interactions with other patients or team members, as well as your own personal experience as a [patient /caregiver].

We sent you an information letter about this research and your rights as a participant, but as a reminder, we are recording today's conversation, and you will remain anonymous. Do let me know if any questions are not relevant to you. You can choose to stop the interview at any time. Do you have any questions for me, before we begin? [Address questions]

Do you consent to participating in the interview?

Do I have your consent to record the interview?

Background

1. How did you become involved in the OHT? (Probe for history of patient engagement)
    a. What made you want to work with the OHT initiative?
    (Probes: What areas did you feel you could help with most? Why?)
    b. Tell me about your role in the OHT and your professional background.
2. [If not addressed above] The [name] OHT has chosen to focus on [clinical conditions/ populations]. Do you have any personal experience with any of these conditions? (Probes: Could you tell me more? How has your experience with [condition] impacted your decision to partner with the OHT?)

Objectives & Preparation

3. From your perspective, why was [name] OHT formed?
(Probes: What was the objective? What are the goals the team hopes to achieve?)
4. What is the vision for the OHT as you understand it?
    a. How was this vision developed?
    b. To what extent is this vision shared amongst all organizations in the OHT?
5. Do you think member organizations are ready to be part of an OHT? Why?
    a. Was there anything that was particularly valuable in helping members prepare for OHT formation/ implementation? (E.g., leadership skills, new practices, technology, resources, etc.)
    b. Was there anything that was not done, or could have been done better to help the team prepare for the OHT model?
    c. Was there anything done that was not valuable or could have been left out?

Leadership & Collaboration

6. We're interested in understanding how partner organizations work together.
    a. How have decisions been made so far in the OHT? (Probes: Is decision-making shared? Do some organizations carry more weight than others?)
    b. Are you satisfied with the level of collaboration across organizations?
        i. What has helped to foster collaboration?
        ii. How can collaboration be further fostered?
        iii. Do you think there is trust among OHT members?
        (Probes: Could you give me an example of what trust looks like on the ground? What has helped in fostering trust? Does any work remain?)
    c. What are some of the key differences between member organizations, and do these differences challenge your ability to work with each other? (e.g., size, resources, sectoral differences). How are they overcome?

7. In your opinion, who have been the most important people in driving forward the OHT model?
    a. What has their role been? (Probes: What is their leadership style? E.g., Is collaboration encouraged? What strategies have been used to foster it?)
    b. Has the OHT faced any leadership-related challenges?

Model & Pathway

8. Is there ongoing discussion and debate about the design of pathways and services amongst the different member organizations? About the process of implementation?
    a. What are the key issues that have come up in relation to designing pathways and deciding which services to include?
    b. [This OHT] chose to focus on [population/s]. Were you involved in this decision? How?

9. What are the key differences in how patients [will] experience care as part of an OHT versus their previous experience of care?
    a. To what extent can pathways be tailored to the individual patient?

10. How is care coordinated? Is care coordination done differently for the OHT, compared to how it was before? (Probe: Was a new position created or are existing providers taking on aspects of coordination?)
    a. Are you satisfied with the plan to coordinate care? Are there any gaps that need to be addressed?

Information Sharing

11. Are organizations able to share clinical information as required? Can you provide examples of what is being shared?
    a. Are there any sectors or member organizations between which information sharing has been a challenge? What are some of the key issues that have surfaced?

b. Are there any new systems or processes of information-sharing that have had to be learned/ adopted as the team plans for OHT implementation?

Physician Engagement

12. Were physicians included during OHT development/ pathway design? What did the process of engaging them involve? (Probe for differences between primary, acute care, etc.)
    a. How receptive have clinicians/ physicians been to the OHT initiative? Have they voiced any concerns , as far as you know?

Patient Engagement

13. As a patient/caregiver partner, how do you feel you have uniquely contributed to the OHT?
14. Do you feel you have been heard by others in the team? (Probes: Do you feel able to contribute? Valued? That your contributions made a difference? What has made you feel valued/ unvalued?)
    a. Is there a story or anecdote that comes to mind that captures what working as a [patient partner] to implement the OHT program has been like for you?
15. Have other patients been involved in this OHT? In what ways? (Probe: Were patients involved in designing OHT pathways?)
16. Do you feel that the OHT adequately accounts for patient perspectives?
    a. Do you have any suggestions as to how the OHT can better engage patients in this work/ ensure their voices are heard?

Evaluation

17. What do you think are the most important areas to evaluate in relation to the OHT model? [either externally or internally]

Reflection

18. Is the OHT approach a promising model? A sustainable one?
    a. What do you like about it?
    b. What concerns do you have?
    c. Is the targeted patient population a good choice for the OHT approach in your opinion? Why/ why not?

19. Reflecting on the last few months, what is something you are particularly proud of accomplishing (either personally, as an organization, or as an OHT)?
    a. What have been your greatest challenges?
    b. Are there any lessons learned, or any insights you would like to share with other teams beginning this journey?

20. Is there anything you'd like to touch on that we have not spoken about?

21. Is there anyone else who has played a key role in shaping your OHT that you would recommend we interview?

Appendix C. Recommended set of measures of patient experience for OHT target populations

Existing Questions from HCES survey

- In general, how confident are you that you know the things that you need to do to take care of and manage your health?
- Do you have a family doctor, a general practitioner or GP, or nurse practitioner that you see for regular check-ups, when you are sick and so on?
- When you see your provider or someone else in their office, how often do they involve you as much as you want to be in decisions about your care and treatment?
- In the last 12 months, when receiving care for a medical problem, was there ever a time when test results were not available at the time of a scheduled appointment with your provider?

Have you been to an emergency department because you were sick or for a health-related problem in the last 12months...?

- The last time you went to the emergency department, was it for a condition that you think could have been treated by your provider if he or she had been available?
- Which of the following was the MAIN reason you went to the emergency rather than to your provider?
- When you left the emergency department, how confident were you that you had the information you needed to care for and manage the health problem for which you went to the emergency?

Have you been hospitalized overnight in the past 12 months?...

- After you were discharged from hospital, did your provider seem informed and up-to-date about the care you received in the hospital?

In the past 12 months, have you been advised by your provider to see a specialist...?

- When you saw the specialist, did he/she have basic medical information from your provider about the reason for your visit?
- After you saw the specialist, did your provider seem informed and up-to-date about the care you got from the specialist?

New Questions

- Thinking about ALL the people you saw in ALL different places you went for your care, is there one who ensures the follow-up of your health care? This could be a physician, nurse practitioner, other health care provider, family member, friend, or someone else.
- If yes, how confident are you that this person/these people will look after you no matter what happens with your health?
- How well do you feel your health care providers understand your health needs?
- How difficult is it for you to access the health care and other non-health care services that you need to maintain your health?
- Thinking about the past 12 months, how often did you understand the next steps in your health care?
- Were there times when different people involved in your care told you different things (that didn't make sense together) about your health?
- How organized would you say ALL your health care is?

If hospitalized overnight in the past 12 months:

- Do you agree that the hospital took your preferences, and those of your family, or caregiver, into account in planning your discharge?

- When you left the hospital, did you know who to contact if you had a question about your condition or treatment?

Appendix D. Pilot set of measures of provider experience for initial use with co-design focus groups (i.e., initial developmental phase of provider experience survey)

List of Potential Survey Items:

Burnout

Using your own definition of "burnout", please indicate which best statement describes your situation at work:

- I enjoy my work. I have no symptoms of burnout.
- Occasionally I am under stress, and I don't always have as much energy as I once did, but I don't feel burned out.
- I am definitely burning out and have one or more symptoms of burnout, such as physical and emotional exhaustion.
- The symptoms of burnout that I'm experiencing won't go away. I think about frustrations at work a lot.
- I feel completely burned out and often wonder if I can go on. I am at the point where I may need some changes or may need to seek some sort of help.

Autonomy/Valued

In your work setting do you have a voice in the following: (None, some, moderate, great)

- The allotment of additional time for difficult-to-help patients
- How you execute your daily responsibilities
- The way things are done in daily work

To what degree does the following statement reflect the conditions in your practice setting/organization? (strongly disagree, disagree, neither, agree, strongly agree)

- I have opportunities to contribute to major strategic decisions (like partnering or merging with another practice or hospital)
- When I suggest an idea for improving quality, this health team actually tries out the idea

Please indicate how much you agree or disagree with the following statement: (strongly disagree, disagree, neither, agree, strongly agree)

- I am contributing professionally (e.g., patient care, teaching, research, and leadership) in the ways I value most
- Leaders of this OHT respect me as a professional
- Co-workers in this practice setting respect me as a professional

Satisfaction

Please indicate how much you agree or disagree with the following statements (strongly disagree, disagree, neither, agree, strongly agree)

- I receive useful information about the quality of care I deliver
- Overall, I am satisfied with my current job

Job Oriented dimensions of experience

To what degree do the following statements reflect the conditions in your practice setting/organization? (visual: Not at all ----> To a great extent, with 4 box options)

- Financial decisions are made with clinical/provider involvement
- Our administrative decision-making process can accurately be described as consensus building

Do you receive the following types of reports for your own patients or the entire practice? (Y/N)

- Demographic information on patients' race, ethnicity or preferred language
- Patient lists or registries (i.e., lists of patients with specific clinical conditions, medications or laboratory results)

The following questions concern your experience with care coordination (always/most of the time, sometimes, seldom/never, does not apply)

All Providers

- How often do you know about all the visits that your patients make to other physicians/providers?
- Thinking about the hospital to which your patients are most commonly admitted, how often are you notified when your patients are admitted?
- How often are you notified when your patients have an Emergency Room visit?
- Patient care is well-coordinated with community resources (e.g., support groups, food pantry, shelters)
- Care is designed to meet the preferences of patients and their families
- We communicate with patients in a way that they understand (e.g., appropriate language and literacy)

Primary Care Physicians only

- How often do you receive useful information about your patients from specialists?
- After your patient has seen a specialist, how often do you talk with the patient or family members about the results of the visit to the specialist?
- When clinically appropriate, how often is it easy to obtain a doctor-to-doctor ("curbside") consult from a specialist in lieu of referring the patient?

Specialist Physicians only

- When you see a patient referred to you by a primary care physician (PCP), how often do you receive the patient's medical history and reason for consultation?

Please indicate how much you agree or disagree with the following statements (strongly disagree, disagree, neither agree nor disagree, agree, strongly agree)

- In our setting/organization, we rely on electronic information systems to share patient information with other providers
- In our setting/organization, patients rely on booking/canceling appointments online
- In our setting/organization, patients rely on having access to their health records
- In our setting/organization, our electronic health record improves the quality of care
- When I am providing clinical care, our electronic health record slows me down

- Using an electronic health record interferes with patient-provider communication during face-to-face clinical care
- I receive an overwhelming number of electronic messages in this setting/organization
- Our electronic health record improves my job satisfaction

Workplace Culture

Please indicate how much you agree or disagree with the following statements about your practice setting/organization. (strongly disagree, disagree, neither agree nor disagree, agree, strongly agree)

- We regularly use feedback from patients and families to improve services
- We regularly take time to consider ways to improve how we do things
- Most people in this practice setting are willing to change how they do things in response to feedback from others
- This practice setting encourages everyone (front office staff, clinical staff, nurses and clinicians) to share new ideas
- I can rely on the other people in this practice setting to do their jobs well
- Leadership promotes an environment that makes the work I do enjoyable.

Please indicate how much you agree or disagree with the following statements (strongly disagree, disagree, neither, agree, strongly agree)

- Staff are constantly leaving and joining this practice
- It is possible to provide high quality care to all my patients

Alignment between job and personal values

- Our OHT's goals and values fit well with my goals and values

Other

Please estimate the percentage of your patients in each of these categories:

a) Female
b) Elderly (over 65)
c) Speak little or no English
d) Suffer from chronic pain
e) Have complex or numerous medical problems
f) Have complex or numerous psycho-social problems
h) Have alcohol or other substance abuse disorders

Appendix E. Ministry of Health – Health System Measures:

1. Number of people in hallway health care beds
2. Percentage of Ontarians who had a virtual health care encounter in the last 12 months
3. Percentage of Ontarians who digitally accessed their health information in the last 12 months
4. 30-day inpatient readmission rate
5. Rate of hospitalization for ambulatory care sensitive conditions
6. Alternate level of care (ALC rate)
7. Avoidable emergency department visits (ED visit rate for conditions best managed elsewhere)
8. Patient Reported Experience Measures, Provider Reported Experience Measures, and Patient Reported Outcome Measures are also under development
9. Timely access to primary care
10. Wait time for first home care service from community
11. Frequent ED visits (4+ per year) for mental health and addictions
12. Time to inpatient bed
13. ED physician initial assessment
14. Median time to long-term care placement
15. 7-day physician follow up post-discharge
16. Hospital stay extended because the right home care services not ready
17. Caregiver distress
18. Total health care expenditures

Appendix F. Ministry of Health – Full Ontario Health Team Application Form

See : http://health.gov.on.ca/en/pro/programs/connectedcare/oht/docs/OHT_Full_Application_EN.pdf

Appendix G. Supplementary Table 1. Response to External and Ministry of Health Reviews

Panel and MOH Feedback	HSPN Responses
This is an ambitious evaluation plan, but the mixed-methods approach is appropriate, and the design is reasonable for this type of project. Congratulations – the reviews were overall very positive, and the proposal advanced understanding of the planned evaluation. It allowed for a meaningful conversation on evaluation with international integrated care experts from Canada, the US, and the UK.	• We appreciate the reviews from the international colleagues, the panel discussion and our subsequent discussion with the Ministry of Health in Ontario.
The resources devoted to qualitative research on collaboration, partnerships, governance and trusting relationships is considerable, but may not move us far along in our understanding of what OHTs are doing (or planning to do), and whether it is working well for OHTs. • Has saturation been considered for the interviews/case studies? Can we strengthen the identification of barriers and failures, which may provide important learning opportunities across OHTs?	• Our initial interview set of 12 cases was selected to enable face-validity and representativeness across different locations and organizing entities of OHT applications and not scientific qualitative saturation (which could have been met with fewer interviews). Greater depth of qualitative descriptions would be greatly valuable in this evaluation work. We will take the advice and be very selective about future formative evaluation interviews as new teams come online and focus future qualitative work on understanding the implementation activities undertaken by OHTs and whether these are working well for the OHTs. This will be included as part of our developmental evaluation as teams move to implementation. • We will identify barriers and facilitators, learning opportunities (i.e., failures) and report on them through developmental evaluation.
The panel identified challenges and limitations with the counterfactual and suggested considering propensity scores.	• We will be developing this method in the coming months and identification of the counterfactual through propensity score weighting or matching is our intended approach. We have very previously implemented the recommended propensity score approach to evaluate previous policy-led integrated care initiatives including the Integrated Funding Models (http://hspn.ca/wp-content/uploads/2020/01/4.-Comparative-Effectiveness-Report.pdf) and in Health Links (http://cmajopen.ca/content/5/4/E753.full).

It will be challenging to show trends or changes, especially given OHTs' unique approaches to integrated care, different initial population targets, and that later waves of OHTs may look different from initial OHTs. Outcome evaluation will be difficult given timelines. • Is it possible to devote further resources to the developmental evaluation? • Can we ensure resources for the evaluation of later waves of OHTs? • What outcomes are realistic to measure across different points in time?	• It is a complex intervention in a complex health system. We do not aim to be specific in the components or implementation activities but to assess how OHTs may be affecting patient outcomes and to describe OHT participants' activities and perceptions of success. • As we move to developmental evaluation, approximately 80% of our evaluation resources will be allocated to this work with 20% devoted to outcome measurement. • See above response regarding qualitative research for the future wave of OHTs. We will learn a great deal from our 12 cases in the first wave of OHTs to assist in determining the best allocation of qualitative resources for the next wave of OHTs. • Outcomes and in particular, measurable change in outcomes is important. We are undertaking a process to select our measures using health administrative data, but as reviewers made mention, are unlikely to be observed in short term. Reviewers recommended measures of PREMs, PROMs and function and we intend to have discussion with the ministry regarding these measures that may be more suitable to demonstrate early changes. We have implemented measures of patient experience in the Ontario Health Care Experience Survey that could be used within OHTs to assess comparative change. However, there are presently no allocated mechanisms or resources to collect patient reported measures in a robust manner within OHTs and this will require OHTs to develop and maintain registries of target patient populations.
There is a tension in the evaluation given teams are focused on year 1 priority populations but will need to be able to develop care that serves an entire attributed population, and that OHTs are choosing their own population and accountability goals.	• We are working on research relating to approaches to and uses of population health management and population segmentation at present and over the next year and intend to share this knowledge with the MOH and OHTs. • We will also seek to identify and include appropriate indicators that balance specific measures in the most common year 1 priority populations with generally applicable population health measures. We will work with patient, caregivers and providers to help identify the most appropriate indicators for OHT evaluation. Generally applicable measures will be aligned with MOH OHT performance measures.

While there is involvement of multiple stakeholder types, the governance structure is not well understood and may benefit from further involvement of other stakeholders.	• This is a very good suggestion and we will begin discussions with the ministry to identify appropriate membership to oversee the central evaluation's work. Work is underway to identify membership for an advisory panel for the Central OHT Evaluation (OHTs, MOH, patients/caregivers to be part of the membership) and Terms of Reference with expected meeting frequency to be quarterly.
Can you build out the plan for including French populations? How can we draw a better understanding of health equity considerations within OHTs/ within the analysis?	• We will be taking an equity lens to all our evaluation work. Our case study selection included urban/rural representation. We will add a case to our formative evaluation that provides a large proportion of services to French Language patients. • Patient-level analyses will contrast patient outcomes across income and related measures of social marginalization.
The proposal should be flexible, but there remains a need to articulate the plan more fully as the project develops. It is somewhat unclear how the analysis will be triangulated across different analyses.	• We will continue to update and specify the evaluation and analysis between September and the end of 2020. We will work with the Ministry in identifying a subset of candidate OHTs to be included in the developmental evaluation. With more information about the detailed data collection, we will increase the specificity of the triangulation of our findings across methodologies.