

Overview

Whenever possible, teams on an Ontario Health Team (OHT) readiness path should strive to build on existing approaches that are evidence based, look for evidence about possible new approaches, and help to build the evidence base when trying out new approaches that haven't yet been evaluated.

This RISE brief addresses how to draw on evidence sources both to improve patient care and experience (building block #4) and to design the seven other building blocks.

Using research evidence to improve patient care and experience

To steadily improve patient care and experience, teams will need to adopt a 'rapid learning and improvement' lens. This involves six steps:

- 1) identify a problem (or goal) through an internal and external review, which includes understanding the causes of the problem and the barriers to achieving the goal;
- 2) design a solution based on data and evidence generated locally and elsewhere;
- 3) implement the plan, possibly in pilot and control settings;
- 4) evaluate to identify what does and does not work;
- 5) adjust, with continuous improvement based on what was learned from the evaluation (and from other teams' evaluations); and
- 6) disseminate the results to improve the coverage of effective solutions across the health system.

The initial focus for teams on an OHT readiness path will be improving care experiences and health outcomes for their year 1 priority populations. In so doing, they will want to document scalable processes that can be spread to other populations in later years.

As described in more detail in RISE brief 6 about population-health management, teams will need to:

- 1) use a population-health management approach, which means:
 - a) identifying one or more year 1 priority populations for whom quadruple-aim metrics are particularly poor and segmenting them into groups (or population segments) with shared needs and understanding the barriers to having these needs met (step 1 in the rapid learning and improvement cycle),
 - b) designing in-reach services (i.e., services that are proactively and opportunistically offered anytime a patient is 'seen in' or 'touched by' the health system) and out-reach services (i.e., connecting with those who are not seeking care now and proactively offering services) that are sensitive to the barriers that each group may face in having their care needs met (step 2 in the cycle), and
 - c) stratifying services for delivery (step 3 in the cycle); and
- 2) design optimal care pathways for patients needing acute episodic or planned surgical care (step 2 in the cycle), much like some OHT partners have done in pilot projects for the integrated funding of 'bundled care.'

Box 1: Coverage of OHT building blocks & relevance to sections in the OHT full application form

This RISE brief primarily addresses **building block #8** and secondarily **building block #4**:

- 1) defined patient population
- 2) in-scope services
- 3) patient partnership and community engagement
- 4) **patient care and experience** (secondary focus)
- 5) digital health
- 6) leadership, accountability and governance
- 7) funding and incentive structure
- 8) **performance measurement, quality improvement, and continuous learning** (primary focus)
 - o **guidelines and other sources of best evidence (domain 54)**

It is relevant primarily to **section 3** (how will you transform care?) in the [OHT full application form](#).

Teams will likely need to appoint a working group to undertake this work for each year 1 priority population.

Step 1: Identifying a problem (or goal)

Compared to data analytics, which is essential in this step, research evidence is helpful in a much more targeted way. The working group can complement its use of data analytics to understand what is not working well now and why with a targeted search for research evidence. Research evidence can help with two questions:

- 1) what comparisons have been made to establish the magnitude of the problem and to measure progress in addressing it? (e.g., are patients needing particular types of care getting sicker over time? are the volume and costs of clinical services to treat a particular category of patients higher locally compared to other comparable communities?); and
- 2) how has the problem been framed or described? (e.g., do patients, families and caregivers view and experience the problem of care coordination differently than nurses and other providers?).

Table 1 describes evidence sources that can be used to answer these two questions. It differentiates evidence sources based on whether they can inform a clinical or service-level understanding of a problem (as in the example in point 1 above, where the focus is at the level of services and products) or an organizational understanding of a problem (as in the example in point 2 above, where the focus is on how the local system is or is not organized to get the right services and products to those who need them). Given problems are typically inherently ‘local,’ local primary studies are typically preferred. Moreover, systematic reviews are much more likely to address solutions than problems, but when reviews about problems exist they can be very helpful in putting the problem in a broader perspective. In the absence of local studies or systematic reviews, the working group will need to decide whether they want to rely on data analytics exclusively or complement data analytics with a targeted search for primary studies from other jurisdictions.

Table 1: Sources of evidence to address questions related to understanding a problem

Questions	Types of research evidence	Evidence sources for a clinical (or service-level) understanding of a problem	Evidence sources for an organizational understanding of a problem
<ul style="list-style-type: none"> • What comparisons can be made to establish the magnitude of the problem? 	<ul style="list-style-type: none"> • Local primary studies (or other primary studies when no local studies or systematic reviews are available) • Systematic reviews 	<ul style="list-style-type: none"> • PubMed HSR Queries for local primary studies (using ‘process assessment’ or ‘outcomes assessment’ filters) • Social Systems Evidence for reviews when the focus extends beyond health to include broader human services and products 	<ul style="list-style-type: none"> • Health Systems Evidence for reviews about delivery and other health-system arrangements • Social Systems Evidence for reviews when the focus extends beyond health-system arrangements to include broader social-system arrangements
<ul style="list-style-type: none"> • How can the problem be framed or described in a way that will motivate key groups to prioritize it? 	<ul style="list-style-type: none"> • Local primary studies (or other primary studies when no local studies or systematic reviews are available) • Systematic reviews 	<ul style="list-style-type: none"> • PubMed HSR Queries for local primary studies (using ‘qualitative research’ filters) • Social Systems Evidence for reviews when the focus extends beyond health to include broader human services and products 	<ul style="list-style-type: none"> • Health Systems Evidence for reviews about delivery and other health-system arrangements • Social Systems Evidence for reviews when the focus extends beyond health-system arrangements to include broader social-system arrangements

Step 2: Designing a solution

Research evidence is essential to designing in-reach and out-reach services. The working group will need to decide both *what* types of services will be offered to promote health, prevent disease and help people live well with their conditions (which we call clinical or service-level decisions), and *how* these services will be offered proactively and opportunistically (which we call decisions about delivery arrangements). Making decisions about ‘how’ should be informed by the robust research evidence available about which providers can safely and effectively deliver services,

and in which settings (e.g., high-volume facilities) care can be safely and effectively provided.

Research evidence is also essential to designing optimal care pathways. The working group will need to decide *what* types of services (e.g., surgery and home care) and products (e.g., prescription drugs) will be provided (i.e., clinical or service-level decisions) and *how* this care will be organized (e.g., remote monitoring, virtual care, system-navigation supports, and 24/7 access to a clinical team, which we call decisions about delivery arrangements).

Research evidence can inform our understanding about the benefits, harms and cost-effectiveness of any solution being considered, as well as how and why the solution works (in case an adaptation is being considered and care needs to be taken to ensure that the elements being adapted aren't critical to its success), and what stakeholders' views and experiences have been when the solution was tried elsewhere. Because many solutions are based on underlying assumptions about the barriers (and facilitators) to optimal care, as well about the resources available within a specific setting, the working group will need to consider whether the assumptions about barriers (and facilitators) and resources are relevant to their context, and hence whether the research evidence about the solution is applicable to their context. The working group may find that it needs to return iteratively to step 1 as it reviews the evidence about solutions because it will want to know what is not working well with any seemingly evidence-based solutions now and why.

Well developed local, provincial or national clinical-practice guidelines can be the best sources of evidence-based clinical (or service-level) solutions, but well-developed health-systems guidance remains relatively rare for delivery arrangements. Key sources of guidelines for the working group include:

- 1) at the provincial level:
 - a) [Health Quality Ontario \(HOO\) quality standards](#),
 - b) [Registered Nurses' Association of Ontario \(RNAO\) best-practice guidelines](#) (which is one of the rare sources of both clinical-practice guidelines and health-systems guidance), and
 - c) [Cancer Care Ontario \(CCO\) guidelines](#);
- 2) at the national level:
 - a) [Canadian Medical Association/Joule clinical-practice guidelines database](#),
 - b) [Canadian Task on Preventive Health Care](#), and
 - c) [SPOR Evidence Alliance clinical-practice guidelines database](#); and
- 3) at the international level:
 - a) [Base Internacional de Guias GRADE](#) (database of GRADE-based guidelines),
 - b) [Guidelines International Network guidelines database](#), and
 - c) [World Health Organization guidelines](#).

If there are no well-developed local guidelines (as will often be the case for 'how' questions pertaining to delivery arrangements), and the working group (or broader team) does not have the money or time to engage one of the many guideline groups in Ontario to prepare a new guideline, it will need to consider additional sources of evidence to designing solutions. Table 2 describes relevant evidence sources for each of the questions that the working group will need to ask about solutions.

Table 2: Additional sources of evidence to address questions related to designing solutions (step 2)

Questions	Types of research evidence	Evidence sources for clinical (or human) services and for products	Evidence sources for delivery arrangements and other system arrangements
<ul style="list-style-type: none"> • What are the benefits (and potential harms) of any solution being considered? 	<ul style="list-style-type: none"> • Systematic reviews 	<ul style="list-style-type: none"> • ACCESSSS for reviews • Social Systems Evidence for reviews when the focus extends beyond health to include broader human services and products 	<ul style="list-style-type: none"> • Health Systems Evidence for reviews about delivery and other health-system arrangements • Social Systems Evidence for reviews when the focus extends beyond health-system arrangements to include broader social-system arrangements

<ul style="list-style-type: none"> • What are the local costs and cost-effectiveness of the solution? 	<ul style="list-style-type: none"> • Local costing or cost-effectiveness studies (or other primary studies when no local studies are available) 	<ul style="list-style-type: none"> • ACCESSSS for local costing or cost-effectiveness studies • PubMed HSR Queries (using ‘costs’ or ‘economics’ filters) for local costing or cost-effectiveness studies • Social Systems Evidence for local costing or cost-effectiveness studies when the focus extends beyond health to include broader human services and products 	<ul style="list-style-type: none"> • Health Systems Evidence for local costing or cost-effectiveness studies about delivery and other health-system arrangements • Social Systems Evidence for local costing or cost-effectiveness studies when the focus extends beyond health-system arrangements to include broader social-system arrangements
<ul style="list-style-type: none"> • How and why does the solution work? 	<ul style="list-style-type: none"> • Systematic reviews • Local primary studies (or other primary studies when no local studies or systematic reviews are available) 	<ul style="list-style-type: none"> • PubMed HSR Queries (using ‘qualitative research’ filter) for local primary studies • Social Systems Evidence for reviews when the focus extends beyond health to include broader human services and products 	<ul style="list-style-type: none"> • Health Systems Evidence for reviews about delivery and other health-system arrangements • Social Systems Evidence for reviews when the focus extends beyond health-system arrangements to include broader social-system arrangements
<ul style="list-style-type: none"> • What have stakeholders’ views and experiences been when the solution was tried elsewhere? 	<ul style="list-style-type: none"> • Systematic reviews • Local primary studies (or other primary studies when no local studies or systematic reviews available) 	<ul style="list-style-type: none"> • PubMed HSR Queries (using ‘qualitative research’ filter) for local primary studies • Social Systems Evidence for reviews when the focus extends beyond health to include broader human services and products 	<ul style="list-style-type: none"> • Health Systems Evidence for reviews about delivery and other health-system arrangements • Social Systems Evidence for reviews when the focus extends beyond health-system arrangements to include broader social-system arrangements

If the working group is extending its focus to include solutions that target groups and populations rather than individuals (i.e., they want to undertake population-based health promotion and disease prevention, which is domain 24 in building block #4), it may want to search [Health Evidence](#) for reviews about the benefits (and potential harms) of such solutions.

Step 3: Implementing the plan

When considering how best to approach implementing the plan for in-reach and out-reach services (i.e., stratifying the services for delivery) and/or for clinical pathways (step 3), the working group can:

- 1) draw on a list of questions to identify the capability, motivation and/or opportunity factors that may affect their health provider colleagues’ decisions and actions; and
- 2) design an implementation plan that incorporates strategies that addresses these factors and policies that support these strategies.

More details about this approach can be found in RISE brief 4 about primary-care leadership and engagement (even though the approach is applicable to all providers, not just primary-care providers, as well as to patients).

The OHT working group can also draw on the [toolkit to support guideline implementation](#) that has been developed by the Registered Nurses’ Association of Ontario and is widely used in Ontario.

In selecting strategies, research evidence can again play an important role. The same questions that should be asked about solutions can also be asked about an implementation strategy (e.g., benefits, harms and cost-effectiveness). Here the relevant evidence sources are more straightforward:

- 1) [Health Systems Evidence](#) for implementation strategies being used in the health sector; and
- 2) [Social Systems Evidence](#) for implementation strategies being used in broader human-services sectors.

We capture the essential points about improving patient care and experience from the above, as well as from RISE brief 6 about population-health management and from RISE brief 8 about data analytics (including how data analytics complement research evidence), in a [RISE summary sheet](#).

Using research evidence to design the other seven OHT building blocks

Most of the other seven OHT building blocks involve decisions related to governance arrangements (who gets to make what types of decisions), financial arrangements (how money flows through the system) and delivery arrangements (where and with what supports care is provided and by whom care is provided), not clinical decisions. For each of the 58 domains covered by the OHT building blocks, RISE has added ‘evidence’ hyperlinks in the final column of the relevant row in the ‘[All resources](#)’ menu on the RISE website. Each hyperlink leads to a curated search of Health Systems Evidence for systematic reviews of the research literature and related document types that address the domain. When no dedicated OHT resources exist, these links provide ready access to the available research evidence about each of the 58 domains.

One complication that teams on an OHT readiness path may encounter in any of this work is what to do with local, provincial or national reports that combine – often in ways that are not transparent – data analytics (e.g., trends over time in a patient-experience metric), research evidence (e.g., an older national guideline about interventions to improve that metric, a more recent synthesis of the four studies in the world that have examined the effects of interventions to improve the metric, and a local study that has examined the barriers to implementing one of these interventions), and the views and experiences of the authors. In such cases, unless the report is considered both reliable and locally applicable (or is actually a local report), teams may want to extract from the report the relevant data analytics and research evidence (when it provides the transparency to do so), complement them with other sources when possible, and come to their own judgments about what the best available data and research evidence mean for OHT decisions. This will be especially important when teams are tackling new problems (or setting new goals) and designing solutions and implementation strategies that have not yet been used and evaluated locally or at least in Ontario, which will frequently be the case.

Moat KA, Lavis JN. RISE brief 9: Evidence sources. Hamilton, Canada: McMaster Health Forum; 2019.

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