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McMaster HEALTH FORUM

ISSUE BRIEF

DEVELOPING A 'RAPID-RESPONSE' PROGRAM FOR HEALTH SYSTEM DECISION-MAKERS IN CANADA

7 MARCH 2014

EVIDENCE >> INSIGHT >> ACTION

Issue Brief:
Developing a 'Rapid-response' Program for Health System Decision-makers in Canada

7 March 2014

McMaster Health Forum

For concerned citizens and influential thinkers and doers, the McMaster Health Forum strives to be a leading hub for improving health outcomes through collective problem solving. Operating at the regional/provincial level and at national levels, the Forum harnesses information, convenes stakeholders, and prepares action-oriented leaders to meet pressing health issues creatively. The Forum acts as an agent of change by empowering stakeholders to set agendas, take well-considered actions, and communicate the rationale for actions effectively.

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Conflict of interest

The authors declare that they have no commercial interests relevant to the issue brief. Their professional interests pertain to their past efforts (for Mike Wilson), current efforts (for Mike Wilson and John Lavis) and potential future efforts to operate rapid-response programs for different target audiences. The funders played no role in the identification, selection, assessment, synthesis or presentation of the research evidence profiled in the issue brief.

Merit review

The issue brief was reviewed by a small number of policymakers, stakeholders and researchers in order to ensure its system relevance and scientific rigour.

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KEY MESSAGES

What's the problem?

- Despite a range of approaches that are available in Canada to support health system decision-makers' efforts to find and use research evidence efficiently, significant barriers and challenges exist, including:
  - a lack of timely access to optimally packaged, relevant and high-quality research evidence, which includes a limited number of mechanisms in place to provide decision-makers with rapid syntheses of the best available research evidence about problems, options and/or implementation considerations related to health-system challenges (i.e., providing the right product at the right time);
  - inconsistent interaction between policy researchers and policymakers, which is a critical factor for ensuring that the priorities of decision-makers are addressed (i.e., having the right people developing products on the right issues); and
  - uncertainty about what success looks like given the long chain of potential causal relationships between an intervention/program (e.g., a rapid-response program) and relevant outcomes (e.g., whether decision-makers' needs are met and/or their use of research evidence).

What do we know about three broad features of a program to address the problem?

- Program feature 1 – Organizing a rapid-response program
  - To match form to function, organizing a rapid-response program can focus on four types of organizational features, which include:
    - governance (e.g., giving decision-makers an explicit role in program governance and implementing and enforcing rules that determine how the program functions);
    - management and staffing (e.g., granting appropriate authority to maintain program accountability and ensuring appropriate skill mix and capacity of staff);
    - resources (e.g., ensuring an appropriate budget and having approaches to prioritize activities when using these resources); and
    - collaboration (e.g., engaging and collaborating with other networks or organizations for the activities of the program).
- Program feature 2 – Establishing what can be done in what timelines
  - The timelines for and scope of what could be provided by the rapid-response program can be defined as follows:
    - three-business days - relevant systematic reviews can be identified and summarized in tables that provide key findings from the reviews, quality appraisals (where already available) and the countries in which included studies are conducted;
    - 10-business days – as above, as well as the preparation of a brief summary of key findings from systematic reviews (and primary research studies where relevant), which is assessed by merit reviewers to ensure system relevance and scientific rigour; and
    - 30-business days – as above, but with a more detailed summary of the available research evidence and/or the results of a jurisdictional scan of what is being done in other provinces and countries.
- Program feature 3 – Defining success and measuring it
  - Four areas where success can be defined and measured in the short- and medium-term through a brief survey and qualitative interviews include: 1) program organization (e.g., does it allow health system decision-makers to efficiently make a request and receive a timely response?); 2) final product (e.g., was the synthesis presented in way that was easy to understand?); 3) influence on behavioural intention to use research evidence; and 4) whether and how the synthesis was used.

What implementation considerations need to be kept in mind?

- Efforts to implement a rapid-response program could focus on building partnerships with health system decision-makers, networks and/or organizations, and on pursuing key external funding opportunities.

REPORT

A gap exists in efforts to support the use of research evidence between 'self-serve' approaches such as 'one-stop shops' for research evidence (e.g., Health Systems Evidence – www.healthsystemsevidence.org) and 'full-serve' approaches such as convening stakeholder dialogues with health-system leaders that are informed by an evidence brief that synthesizes the best available research evidence. A rapid-response program could fill this gap by providing timely access to research evidence for health system decision-makers (i.e., policymakers and stakeholders who make, inform or implement decisions about health systems) when these decision-makers need support with finding and synthesizing the available research evidence but the timeline is too short to prepare a full evidence brief and convene a stakeholder dialogue,.

This issue brief was prepared as an input to a half-day stakeholder dialogue involving those who will be involved in or affected by decisions about whether and how to develop a rapid-response program for health system decision-makers in Canada.

The issue brief first provides an overview of key features of the problem, three possible broad features of a rapid-response program, and implementation considerations related to moving forward with such a program. Within this scope, the issue brief is focused on the best available research evidence and (as explained in Box 1) does not contain recommendations. In addition, while the issue brief strives to address all health system decision-makers, we highlight equity considerations (as explained in Box 2) for 'small' provinces and territories (with 'small' meaning provinces with small numbers of policymakers, providers and/or patients).

Various mechanisms have been proposed to support the use of research evidence by health system decision-makers, which are typically grouped into the following sets of activities:(1)

- 'push' mechanisms: producers of research and key intermediaries (e.g., knowledge brokers) actively disseminating research evidence (e.g., in the form of an evidence brief);
- 'facilitating user-pull': researchers and key intermediaries making research evidence available for target audiences in a form they can use (e.g., 'one-stop shops');

Box 1: Background to the issue brief

This issue brief mobilizes both global and local research evidence about a problem, three broad features of a program for addressing the problem, and key implementation considerations. Whenever possible, the issue brief summarizes research evidence drawn from systematic reviews of the research literature and occasionally from single research studies. A systematic review is a summary of studies addressing a clearly formulated question that uses systematic and explicit methods to identify, select and appraise research studies, and to synthesize data from the included studies. The issue brief does not contain recommendations, which would have required the authors of the brief to make judgments based on their personal values and preferences, and which could pre-empt important deliberations about whose values and preferences matter in making such judgments.

The preparation of the issue brief involved five steps:

1) convening a Steering Committee comprised of representatives from the British Columbia Ministry of Health, Saskatchewan Health, Ontario Ministry of Health and Long-Term Care, Quebec Ministry of Health and Social Services, Nova Scotia Health and Wellness, and the McMaster Health Forum;
2) developing and refining the terms of reference for an issue brief, particularly the framing of the problem and three possible broad features of a rapid-response program, in consultation with the Steering Committee and a number of key informants, and with the aid of several conceptual frameworks that organize thinking about ways to approach the issue;
3) identifying, selecting, appraising and synthesizing relevant research evidence about the problem, possible broad features of a rapid-response program, and implementation considerations;
4) drafting the issue brief in such a way as to present concisely and in accessible language the global and local research evidence; and
5) finalizing the issue brief based on the input of several merit reviewers.

Unlike a Forum evidence brief, a Forum issue brief does not involve as comprehensive an evidence review by Forum staff.

The issue brief was prepared to inform a half-day stakeholder dialogue for which research evidence is one of many considerations. Participants' views and experiences and the tacit knowledge they bring to the issues at hand are also important inputs to the dialogue. One goal of the stakeholder dialogue is to spark insights – insights that can only come about when all of those who will be involved in or affected by future decisions about the issue can work through it together. A second goal of the stakeholder dialogue is to generate action by those who participate in the dialogue, and by those who review the dialogue summary and the video interviews with dialogue participants.

- 'pull' mechanisms: policymakers incorporating prompts for research evidence in their decision-making processes and developing their capacity to find and use research evidence; and
- 'exchange' efforts: producers and users of research engaging in a process of asking and answering questions together (i.e., building partnerships, working collaboratively to produce research, and/or engaging in deliberative dialogues to collaboratively address emerging health-system issues).

'Rapid-response' programs have been identified as a key mechanism to 'facilitate user-pull' and hence to fill the gap that exists between 'self-serve' approaches (e.g., one-stop-shops for research evidence) and 'full-serve' approaches (e.g., preparing evidence briefs and convening stakeholder dialogues). Such programs do so by providing access to optimally packaged, relevant and high-quality research evidence for decision-makers over short periods of time (i.e., days or weeks). In general, rapid-response programs are accessible by telephone, email or websites, provide instructions about what needs to be submitted as part of a request (e.g., a clear question, the context for the request, and the timeline within which a response is required), and an outline of what can be expected within different timeframes (e.g., what can expected in a timeline of days versus weeks).

Depending on the timelines provided, products provided through a rapid-response program might include a listing of relevant research evidence (if the timeline is relatively short), a brief synthesis of the results (if the timeline permits) or a more detailed summary (if given a longer period of time). In addition, some rapid-response programs may also conduct briefings with decision-makers based on the research evidence identified.(2) Policymakers who have previously used such services and found them to be valuable may also be more inclined to think about finding and using research evidence in future, and/or highlight the value of doing so to their peers. In addition, the products of a rapid-response program (which we will call 'rapid syntheses') can be made available in a repository for others to access (as another effort to facilitate 'user pull') or be actively disseminated to policymakers in other settings (as a 'push' mechanism) who may (or eventually will) be grappling with the same or similar issues.

Box 2: Equity considerations

A problem may disproportionately affect some groups in society. The benefits, harms and costs of elements of a comprehensive approach for addressing the problem may vary across groups. Implementation considerations may also vary across groups.

One way to identify groups warranting particular attention is to use "PROGRESS," which is an acronym formed by the first letters of the following eight ways that can be used to describe groups†:

- place of residence (e.g., rural and remote populations);
- race/ethnicity/culture (e.g., First Nations and Inuit populations, immigrant populations, and linguistic minority populations);
- occupation or labour-market experiences more generally (e.g., those in "precarious work" arrangements);
- gender;
- religion;
- educational level (e.g., health literacy);
- socio-economic status (e.g., economically disadvantaged populations); and
- social capital/social exclusion.

This issue brief strives to address all health system decision-makers, but (where possible) it also gives particular attention to 'small' provinces and territories (with 'small' meaning provinces and territories with small numbers of policymakers, providers and/or patients). Other groups may warrant serious consideration as well, and a similar approach could be adopted for any of them.

† The PROGRESS framework was developed by Tim Evans and Hilary Brown (Evans T, Brown H. Road traffic crashes: operationalizing equity in the context of health sector reform. *Injury Control and Safety Promotion* 2003;10(1-2): 11–12). It is being tested by the Cochrane Collaboration Health Equity Field as a means of evaluating the impact of interventions on health equity.

Products produced through this type of process (i.e., rapid syntheses) are distinct from a rapid systematic review (and other variants of the term such as rapid realist review) in several ways. First, the timeline within which a rapid synthesis is prepared is set by the requester and rarely takes more than a few weeks. In contrast, a rapid review is a comprehensive systematic review that has been conducted in a condensed timeline, such as

six months, instead of a more standard timeline like one or two years. Second, the nature of the questions addressed can take many forms, and relate to a problem, options or implementation considerations, as opposed to a rapid review of the effects of a single option. Lastly, the nature of the evidence reviewed differs, with rapid syntheses typically including existing systematic reviews and occasionally single studies, as opposed to only single studies in rapid reviews.

THE PROBLEM

Despite a range of approaches that are available in Canada to support health system decision-makers' efforts to find and use research evidence efficiently, significant barriers and challenges exist, including: 1) lack of timely access to optimally packaged, relevant and high-quality research evidence (i.e., providing the right product at the right time); 2) inconsistent interaction between policy researchers and policymakers (i.e., having the right people developing products on the right issues); and 3) uncertainty about what success looks like.

Box 3: Mobilizing research evidence about the problem

The available research evidence about the problem was sought from a range of published and "grey" research literature sources. Published literature that provided insights into alternative ways of framing the problem was sought using the qualitative research "hedge" in MedLine. Grey literature was sought by reviewing the websites of a number of Canadian and international organizations.

Priority was given to research evidence that was published more recently, that was locally applicable (in the sense of having been conducted in Canada), and that took equity considerations into account.

Lack of timely access to optimally packaged, relevant and high-quality research evidence

Health system decision-makers often find themselves in situations that spur them to work out how best to understand a problem and its causes, identify feasible, acceptable and effective options to address the problem, and then identify strategies to support the implementation of preferred options.(3-5) These situations often require the policy-development process to unfold within timelines ranging from hours or days to weeks or months. For instance, policymakers may need help deciding whether to pay serious attention to a problem that others claim is important (e.g., through an issue highlighted on the front page of a newspaper), or determining how to convince others to agree that a problem is important. In considering options to address a problem, those involved in the policy-development process may need to rapidly assess how to maximize benefits and minimize the harms and costs for an option that has already been selected, assess options that have been identified but are actively being debated, or develop a strategy to support full implementation to achieve optimal results. Research evidence is an important input in each of these situations.

The timely availability of research evidence was one of two factors that were found in a systematic review of the factors associated with the use of research evidence by policymakers.(6) However, without dedicated resources and capacity, it is difficult for health system decision-makers to find and use research evidence in a timely manner. When resources from within governments are available, they are typically stretched across multiple competing priorities and the 'crisis of the day,' making it difficult to adequately respond in times of high demand for research evidence. When decision-makers look for support to find and synthesize research evidence in a timely manner, they may turn to internal research-support services (many of which use less systematic and transparent processes than are typically used by formally designated programs) or to researchers with whom they have an established relationship. Alternatively they may turn to one of four formalized rapid-response programs in Canada, if their question is about drugs and other health technologies,(7) if they are in Quebec and are interested in questions about drugs and other health technologies or about health and social programs and services,(8) if they are in Ontario and are interested in questions related to HIV,(9) or if they are a manager or stakeholder working within the Champlain Local Health Integration Network.(10;11) However, there is currently no mechanism in place outside of government to provide rapid syntheses of the best available research evidence about problems, options

and/or implementation considerations related to a specific health-system challenge that decision-makers need to address in a timely manner.

Inconsistent interaction between researchers and decision-makers

Interactions among researchers and decision-makers was the second factor that emerged from a systematic review of the literature of factors that increase the use of research evidence (with, as noted, the first factor being timeliness).(6) Supporting such opportunities for 'exchange' between policy researchers and decision-makers means that the producers and users of research engage in a process of asking and answering questions together. This can include efforts directed specifically towards building relationships and partnerships (e.g., through a knowledge broker), setting priorities for producing new research evidence (including for conducting syntheses), working collaboratively to co-produce research evidence (e.g., through a jointly undertaken research project), and supporting the use of findings (e.g., engaging in deliberative processes to collaboratively address emerging health-system issues or contributing to efforts to foster a culture for research use among other decision-makers).

However, it has been identified empirically that researchers and decision-makers work in two distinct environments.(12) These environments are such that researchers often lack an understanding of the needs of decision-makers, and decision-makers are often unable to efficiently find and use research evidence. For example, even when researchers address a topic of interest to a decision-maker, it may not include the types of information relevant to them, including benefits, harms and costs, as well as how and why a policy or programmatic option works, and stakeholders' views and experiences with the option. Without organizational models that are supportive of 'exchange' processes for producing and supporting the use of research evidence, the priorities of decision-makers may not be addressed.

Uncertainty about what success looks like

Measuring the success of efforts to support the use of research evidence is challenging given the long chain of potential causal relationships between an intervention/program (e.g., a rapid-response program) and relevant outcomes (e.g., use of research evidence to inform policy or programs, or, even further down the chain, improving health).(13;14) Measuring success is further complicated by the competing influences on the decision-making process, such as institutional constraints within a political system, stakeholder pressure campaigns, values and beliefs held by key decision-makers, and external factors such as the state of the economy.(15-17)

Possibly as a result of these challenges, systematic reviews have found few rigorous evaluations of efforts to support the use of research evidence in health system decision-making.(18-22) As a result, careful attention needs to be paid to: 1) identifying what success would like from the perspective of those delivering the intervention/program as well as from the perspective of the target audience; and 2) selecting a methodological approach (or mix of approaches) that will allow for the 'best' assessment of whether success was achieved.

Additional equity-related observations about the problem

The need for a rapid-response program for health system decision-makers in Canada and supporting the use of research evidence more generally can be more acute for 'small' provinces and territories. For example, as compared to larger provinces, ministries of health in smaller provinces may be hard pressed, given limitations in staff and other resources, to allocate internal resources to units that are dedicated to finding and synthesizing research evidence for the rest of the ministry. However, even in larger provinces such as Ontario where such a unit exists, the dedicated staff are often unable to keep up with high demand for their services.

THREE BROAD FEATURES OF A PROGRAM TO ADDRESS THE PROBLEM

To promote discussion about the pros and cons of a potentially viable approach to developing a rapid-response program for health system decision-makers in Canada, we have selected three program features. The three program features were developed and refined through consultation with the Steering Committee and include activities related to:

1) organizing a rapid-response program;
2) establishing what can be done in what timelines; and
3) defining success and measuring it.

The features are designed to be elements of a comprehensive approach to developing a rapid-response program that provides syntheses of the best available research evidence about problems, options and/or implementation considerations related to a specific health system challenge over a timeline of several days to several weeks. The program features are presented separately to foster deliberations about their respective components, the relative importance or priority of each, their interconnectedness and potential of or need for sequencing, and their feasibility.

In this section of the issue brief, we review available research evidence about each program feature. Our review yielded relatively little research evidence dealing specifically with developing a rapid-response program. However, we have included research evidence and frameworks that could provide relevant insights and spur reflection about each program feature as it could pertain to developing a rapid-response program for health system decision-makers. We also identify salient issues related to each program feature that could be the focus of deliberations.

Box 4: Mobilizing research evidence about program features for addressing the problem

The available research evidence about program features for addressing the problem was sought primarily from Health Systems Evidence (www.healthsystemsevidence.org), which is a continuously updated database containing more than 3,000 systematic reviews and more than 1,600 economic evaluations of delivery, financial and governance arrangements within health systems. The reviews were identified by searching the database for reviews within the sub-category of organization-targeted implementation strategies.

The authors' conclusions were extracted from reviews and studies whenever possible. Some reviews contained no studies despite an exhaustive search (i.e., they were "empty" reviews), while others concluded that there was substantial uncertainty about the element based on the identified studies. Where relevant, caveats were introduced about these authors' conclusions based on assessments of the reviews' quality, the local applicability of the reviews' findings, equity considerations, and relevance to the issue. (See the appendices for a complete description of these assessments.)

Being aware of what is not known can be as important as being aware of what is known. When faced with an empty review, substantial uncertainty or concerns about quality and local applicability, or a lack of attention to equity considerations, primary research could be commissioned or an element could be pursued and a monitoring and evaluation plan designed as part of its implementation. When faced with a review that was published many years ago, an updating of the review could be commissioned if time allows.

No additional research evidence was sought beyond what was included in the systematic review. Those interested in a particular program feature may want to search for a more detailed description of the feature or for additional research evidence about the feature.

Program feature 1 – Organizing a rapid-response program

In organizing a program to support the use of research evidence, it is essential to match form to function.(23) To do so (and to foster deliberations about doing so) we have identified four types of organizational features (governance, management and staffing, resources, and collaboration) based on a recent policy summary designed to encourage debate and innovation about the ways in which knowledge-brokering organizations organize themselves.(23) According to this policy summary, knowledge brokering refers to the "use of information-packaging mechanisms and/or interactive knowledge-sharing mechanisms to bridge policy-makers' and researchers' contexts," which encompasses

many of the proposed activities of the rapid-response program. We outline these types of organizational features in Table 1 along with possible approaches to operationalizing each of them.

The policy summary from which the types of organizational features were derived also provides a set of nine criteria that can be used to assess organizational models for knowledge brokering, and that build on recommendations from a multi-method study for those involved in establishing or leading organizations that support the use of research evidence in developing health policy.(23) The nine criteria ask whether a knowledge-brokering organization:(23)

1. gives policymakers, stakeholders and researchers an explicit role in its governance and ensures they exercise their role with transparency and objectivity;
2. has and enforces rules that ensure independence in how health-systems information is produced, packaged and shared, and that address conflicts of interest;
3. grants the director the authority needed to ensure the accountability of the entire organization to its knowledge-brokering mandate;
4. ensures an appropriate size, mix and capacity of staff with knowledge-brokering responsibilities;
5. ensures an appropriate size of budget and an appropriate mix of funding sources for knowledge-brokering activities;
6. has an explicit approach to prioritizing knowledge-brokering activities and accepting commissions or requests from policymakers and stakeholders;
7. is located within another organization or network that supports its knowledge-brokering activities;
8. collaborates with other knowledge-brokering organizations in its knowledge-brokering activities; and
9. establishes functional linkages with policymaking and stakeholder organizations.

Table 1: Summary of organizational features and possible approaches to operationalizing them

Organizational feature	Possible approaches to operationalizing each feature	Criteria met*
Governance (structure, scope and rules)	• Administer the rapid-response program through the McMaster Health Forum under its existing governance structure that prioritizes strong links with and involvement of policymakers and stakeholders in the programs it delivers • Operationalize this approach to governance by convening a rapid-response program steering committee consisting of federal, provincial and territorial health system decision-makers and stakeholders who can provide strategic guidance about administering the program • Establish that the rapid-response program: o addresses topics that are driven by those requested by health system decision-makers (requests will be submitted to the Forum through email and the questions will be refined by the Forum in collaboration with the requestor where necessary); o ensures that the findings of the syntheses are based on the available research evidence and not the personal views of those who requested or developed it; o identifies whether any potential conflicts of interest exist in any product produced through the rapid-response program; and o disseminates completed syntheses (e.g., through the existing Forum Update quarterly newsletter and/or through a dedicated email list to program partners) and makes them available through a dedicated repository on the Forum's website (but without the requestor's jurisdiction attached to the synthesis to provide some level of anonymity)	• 1, 7 • 1, 9 • 2
Management and staffing	• Allocate authority to the organizational leadership of the Forum for ensuring the accountability of the program in relation to its mandate • Use effective project management processes to make the best use of available resources, and to sequence and prioritize tasks in a way that allows for all requests to be completed within specified timelines • Implement minimum training standards (e.g., completing an online training course about finding and using research evidence) and provide ongoing mentorship for staff contributing to the rapid-response program (this includes both those at the Forum and from partner networks or organizations)	• 3 • 6 • 4
Program resources	• Seek external (but not user-pay) and long-term funding (e.g., from a Partnerships for	• 5 (if

	Health System Improvement grant from the Canadian Institutes of Health Research) that will allow for both the delivery and ongoing evaluation of the program • Prioritize some requests over others in times when demand exceeds available resources, which could be accomplished through one or more of the following approaches: o completing requests from those who have not recently accessed the program; o requesting a resubmission at a later date for topics that are deemed less urgent (either by the requestors themselves, by the steering committee, or both); and/or o engaging the program steering committee to help decide which requests should be prioritized (e.g., through a voting or ranking process over email)	successful) • 6
Collaboration	• Engage trusted national, provincial and territorial partner networks or organizations (where possible and necessary) to: o identify whether a synthesis has already been completed on the topic (e.g., by establishing a listserv that can be used to efficiently contact all partners when a request is received); and o collaborate with the Forum to conduct syntheses (or build on existing products identified) to ensure relevance to particular provincial and territorial contexts	• 8

* The ordering of bullets in this column corresponds to the order in the adjacent column that lists possible approaches to operationalizing each feature.

We did not identify any systematic reviews addressing this program feature, but for illustrative purposes we outline the categories of findings that could be considered in evaluations of alternative approaches to organizing a rapid-response program (Table 2).

Table 2: Summary of key findings from systematic reviews relevant to program feature 1 – Organizing a rapid-response program

Category of finding	Summary of key findings
Benefits	• None of the identified reviews provided information about potential benefits of this program feature
Potential harms	• None of the identified reviews provided information about potential harms of this program feature
Costs and/or cost-effectiveness in relation to the status quo	• None of the identified reviews provided information about costs and/or cost-effectiveness of this program feature
Key elements of the program feature if it was tried elsewhere	• None of the identified reviews provided information about key elements of this program feature
Stakeholders' views and experience	• None of the identified reviews provided information about stakeholders' views and experiences

Given the lack of research evidence about this program feature, we provide additional insight about organizing a rapid-response program by identifying several examples of existing rapid-response programs that target, at least in part, health system decision-makers. We identified the programs in collaboration with our Steering Committee, reviews of mechanisms designed to promote the use of research evidence by policymakers,(24;25) and from our first-hand knowledge of existing programs. We only included formally organized programs that are designed to conduct rapid syntheses as their core task (as opposed to support that may be offered informally within government ministries or other organizations) given that we are interested in how to formally operationalize a rapid-response program. We provide a list of these programs in Table 3 along with their organizational features based on the four types of features outlined above. We identified the organizational features of each program by reviewing their respective websites, through our first-hand knowledge of some of them, or based on input received from our project steering committee. In the cases where we relied on website review, informational gaps in our analysis may exist. Note that we provide an additional profile of the specific activities and products that each program produces in the next section about deciding what can be done and in what timelines (program feature 2).

Table 3: Analysis of organizational features of rapid-response programs targeted to health system decision-makers

Rapid-response program	Features (jurisdiction, target audience and topic focus	Governance	Management and staffing	Program resources	Collaboration
Canadian Agency for Drugs and Technologies in Health (CADTH)(7)	*Jurisdiction* • Canada *Target audience* • Policymakers from federal, provincial and territorial health ministries; health authorities; hospitals; and national and regional health care programs *Topic focus* • Drugs and other health technologies	• Administered by CADTH, which is governed by a board of directors that includes provincial and territorial policymakers and managers of health authorities • Provides a clear set of rules and processes for how to make a request, what can be expected, and how the products are developed	• Program has a dedicated manager and is supported by liaison offers for federal, provincial and territorial governments	• Funded internally by CADTH, which is in turn funded by Canadian federal, provincial and territorial governments	• Solicits feedback on projects and drafts reports from a variety of stakeholders
Institut national d'excellence en santé et en services sociaux (INESSS)(8)	*Jurisdiction* • Québec (Canada) *Target audience* • Policymakers and provider associations *Topic focus* • Drugs and other health technologies; health programs and services; and social programs and services	• Administered by INESSS, which is governed by a board of directors that includes health system managers and researchers • Provides a clear description of what can be expected and how the products are developed (but no description of the rules and processes for making a request)	• The unit has dedicated staff led by the director of the branch and overseen by INESSS vice-president of scientific production	• Funded from within INESSS, which is funded by the Québec government • No information publicly available about the processes to prioritize requests	• External experts are contacted to review scientific aspects of the product to ensure scientific validity of the document produced
Ontario HIV Treatment Network (OHTN)*(9)	*Jurisdiction* • Ontario (Canada) *Target audience* • Community-based organizations providing services to people with HIV in Ontario *Topic focus* • HIV prevention, support and treatment programs and services	• Administered as a program within the OHTN, which prioritizes the engagement of a range of stakeholders in all of its activities • Uses specified procedures to produce, package and share the rapid syntheses it produces	• Program is overseen by the organizational manager responsible for all synthesis activities • No dedicated staff, but syntheses are conducted by a range of staff with research expertise	• No dedicated funding for the program, but staff resources are drawn from existing programs within the organization • Uses informal processes to prioritize requests	• External experts are often contacted to help identify relevant literature and/or review scientific aspects of the synthesis
Ottawa Hospital Research Institute/Champlain Local Health Integration Network (LHIN) (10)	*Jurisdiction* • Ontario (Canada) *Target audience* • Managers and stakeholders of the Champlain Local Health Integrated Network *Topic focus* • Disease management-related programs and services	• Developed and governed through a defined partnership between researchers and a LHIN in Ontario • Uses defined eight-step process to produce evidence summaries(11)	• Overseen by two researchers and a manager in a LHIN • Program has a dedicated research coordinator to lead the production of evidence summaries (among other responsibilities)	• Funded by a Knowledge to Action grant from the Canadian Institutes of Health Research	• Collaboration between applied health researchers from the Ottawa Hospital Research Institute and the University of Ottawa with the Champlain LHIN
Planning Unit of the Ontario Ministry of Health and Long-	*Jurisdiction* • Ontario (Canada) *Target audience*	• Unit is administered by the Planning, Research and Analysis Branch of the MOHLTC	• Program has several dedicated staff, is led by a unit manager, and is	• Funded from within the MOHTLC • Uses a process to	• External experts are engaged where necessary and possible

Rapid-response program	Features (jurisdiction, target audience and topic focus	Governance	Management and staffing	Program resources	Collaboration
Term Care (MOHLTC)*	• Policymakers in the divisions, branches and units of the Ontario MOHLTC *Topic focus* • Health system arrangements, programs and services	• Uses specified procedures to produce, package and share literature reviews produced	overseen by the director of the branch	ensure that the most urgent requests are met	
Evidence Check (26;27)	*Jurisdiction* • Australia *Target audience* • Health policy and health services agencies *Topic focus* • Health system arrangements, programs and services	• Administered by the Sax Institute, which promotes the use of research evidence in health policy • Provides a clear process for producing a review, including a commissioning process and knowledge brokering session to clarify the issues/questions to be addressed, and identifying researchers to complete the review	• Knowledge brokers work with policymakers to clarify and refine their policy issues into researchable questions	• Core funding is provided by the New South Wales Ministry of Health with additional funds from other governmental, non-government, philanthropic and competitive research funding agencies	• Reviews are completed by drawing on the Institute's network of member organizations and researchers, and through regular calls for expressions of interest from researchers interested in conducting rapid literature reviews
Health Evidence Network (HEN)(28)	*Jurisdiction* • Europe *Target audience* • Public health and health system policymakers in the WHO European Region *Topic focus* • Public health policies, and health system policies, programs and services	• Network steering committee advises HEN on its aims, objectives, strategies and approaches	• No information available	• Funding and support provided by the European Commission via the Directorate-General for Health and Consumer Protection, and the Government of France	• Where a detailed synthesis report or a joint policy brief is prioritized, a team of specialists is mobilized to support the development process
International Healthcare Comparisons(29)	*Jurisdiction* • England *Target audience* • Policymakers in the Department of Health *Topic focus* • Jurisdictional reviews of health system arrangements, programs and services	• Themes focused on in the program are selected in close consultation with the Department of Health in England	• The program is coordinated by a research team based at RAND Europe and the London School of Hygiene & Tropical Medicine	• Funded by the Department of Health in England	• The core team works with experts from a range of countries from the International Healthcare Comparisons Network
SURE Project (30)	*Jurisdiction* • Uganda and Burkina Faso (with pilot testing in Cameroon and Zambia) *Target audience* • Policymakers *Topic focus* • Health system arrangements, programs and services	• Program administered by the SURE (Supporting the Use of Research Evidence) collaboration, which is a mechanism to support evidence-informed policymaking in Africa	• Program is led by a program officer with SURE who is based out of Makerere University in Uganda	• SURE is funded by the European Commission's 7th Framework Programme	• SURE project involves teams of researchers and policymakers in seven African countries, and is supported by research teams in three European countries and Canada

*Note that the information related to these programs was partially derived based on first-hand experience either from the authors (in the case of the MOHLTC and OHTN programs) or the steering committee (in the case of the MOHTLC program).

Program feature 2 – Deciding what can be done in what timelines

This program feature involves establishing the timelines in which a rapid synthesis can be completed, and defining the scope of activities and products that can be done within each timeline. We have identified three different timelines in which a request can be made to the rapid-response program (three-, 10- or 30-business days) and outline in Table 4 what can be done and what cannot be done within each of those timelines.

Table 4: Summary of what can and cannot be done in what timelines

Timeline*	What can be done	What we cannot be done
Three business days	• Identify systematic reviews and economic evaluations relevant to health systems from key databases (e.g., Health Systems Evidence) • Provide summary tables that outline: o key findings from relevant systematic reviews; o quality appraisals of systematic reviews (for reviews that are available through Health Systems Evidence); and o countries in which studies included in systematic reviews were conducted (for reviews that are available in Health Systems Evidence)	• Identify primary research studies (e.g. published studies and unpublished reports) • Conduct quality appraisals for reviews that are not available through Health Systems Evidence • Prepare a detailed summary of key findings • Engage experts to conduct a merit review of the findings to ensure scientific rigour and system relevance • Conduct jurisdictional scans of what is being done nationally and internationally • Conduct a full systematic review
10 business days	• Identify systematic reviews and economic evaluations relevant to health systems from key databases (e.g., Health Systems Evidence) • Identify relevant primary research studies when limited evidence is available from systematic reviews • Provide summary tables that outline: o key findings from relevant systematic reviews; o quality appraisals of systematic reviews (for reviews that are available through Health Systems Evidence); and o countries in which studies included in systematic reviews were conducted (for reviews that are available in Health Systems Evidence) • Prepare a brief summary of the key findings from systematic reviews (and primary research studies where relevant) • Engage experts to conduct a merit review of the brief summary to ensure scientific rigour and system relevance (a draft summary will be sent before merit reviewer feedback is received and then a final summary that incorporates reviewers' feedback will be sent within another five business days)	• Identify grey literature (e.g., unpublished reports) that is not already contained in key databases (e.g., Health Systems Evidence) • Prepare a detailed summary of key findings • Incorporate feedback from experts engaged in the merit process within a 10-day timeline (but a final summary that incorporates reviewers' feedback will be sent within another five business days) • Conduct jurisdictional scans of what is being done nationally and internationally • Conduct a full systematic review
30 business days	• Identify systematic reviews and economic evaluations relevant to health systems from key databases (e.g., Health Systems Evidence) • Identify relevant primary research studies when limited evidence is available from systematic reviews • Conduct jurisdictional scans of what is being done nationally and internationally through targeted searches of databases for published literature, and websites of relevant jurisdictions and stakeholders for grey literature that is not already contained in key databases (e.g., Health Systems Evidence) • Consult with experts with knowledge of the topic to identify additional relevant research evidence (contingent on locating relevant experts) • Provide summary tables that outline: o key findings from relevant systematic reviews; o quality appraisals of systematic reviews (for reviews that are available through Health Systems Evidence); and o countries in which studies included in systematic reviews	• Conduct a full systematic review

	were conducted (for reviews that are available in Health Systems Evidence) • Prepare a detailed summary of the key findings from systematic reviews (and primary research studies where relevant) • Engage experts to conduct a merit review of the detailed summary to ensure scientific rigour and system relevance, and incorporate reviewers' feedback in the final report within the 30-business-day timeline	

*The timeline would start after finalizing the question to be addressed with the requestor.

We identified several systematic reviews evaluating interventions for supporting the use of research evidence by policymakers, and each found insufficient evidence to draw conclusions about the effectiveness of interventions that have been designed for this purpose (Table 3).(18-21) However, one of the reviews, which was recent but of low quality, found some evidence to suggest that tailored targeted messages combined with access to registries of research evidence (similar to what is outlined in Table 1 under governance for the program) may increase the use of research evidence in policymaking.(19)

For those who want to know more about the systematic reviews contained in Table 5 (or obtain citations for them), a fuller description of each is provided in Appendix 2.

Table 5: Summary of key findings from systematic reviews and studies relevant to program feature 2 – Deciding what can be done in what timelines

Category of finding	Summary of key findings
Benefits	• *Interventions for supporting the use of research evidence by policymakers:* o A recent but low-quality review found some evidence to suggest that tailored targeted messages combined with access to registries of research evidence may increase the use of research evidence in policymaking.(19)
Potential harms	• None of the identified reviews provided information about potential harms of this program feature
Costs and/or cost-effectiveness in relation to the status quo	• None of the identified reviews provided information about costs and/or cost-effectiveness of this program feature
Uncertainty regarding benefits and potential harms (so monitoring and evaluation could be warranted if the program feature were pursued)	• No clear message from studies included in a systematic review o *Interventions for supporting the use of research evidence by policymakers:* ▪ Several systematic reviews, including one recent, high-quality review, have evaluated strategies and interventions for encouraging the use of research evidence (mostly systematic reviews) by health policymakers and managers, and each have found insufficient evidence to draw conclusions about the effectiveness of interventions that have been designed for this purpose.(18-21)
Key elements of the program feature if it was tried elsewhere	• None of the identified reviews provided information about key elements of this program feature
Stakeholders' views and experience	• None of the identified reviews provided information about stakeholders' views and experiences

Given the limited synthesized research evidence available, we have built on the profile of organizational characteristics of rapid-response programs presented earlier by summarizing in Table 6 their target audience, types of topics addressed, and the products provided (and the timelines in which they are produced).

Table 6: Summary of activities of rapid-response programs targeted to health system decision-makers

Rapid-response program*	Type of evidence summarized	Products provided (and the timelines in which they are produced)	Key features of products	Volume of production**
Canadian Agency for Drugs and Technologies in Health (7;31)	• Effectiveness and cost-effectiveness studies evaluating existing healthcare technologies, such as drugs, devices, surgical and nonsurgical procedures, and diagnostic and screening tests.	• Reference list (5-10 business days) • Summary of abstracts (15 business days) • Summary with critical appraisal (30 business days) • Peer-reviewed summary with critical appraisal (4 months) • Systematic review and meta-analysis (4-5 months) • Rapid health technology assessment (5-6 months) • Environmental scan (5-40 business days) • Drug review and formulary recommendation (5-6 months) • Health technology assessment (case-by-case basis) • Optimal use project (case-by-case basis)	• Products may be tailored to meet the timeline and needs of the requestor • Developed using systematic and transparent methods for literature searching, study selection, data abstract, synthesis and critical appraisal • Summaries use a structured approach that outline the context of the issue, research questions, key findings, methods used, summary of the evidence and summary of the critical appraisal (when conducted)	• 2,093 products
Institut national d'excellence en santé et en services sociaux (INESSS) (8)	• Evidence about effectiveness, safety and other elements requested • In-depth analysis of contextual evidence (e.g., organizational, economic, ethical, legal and social challenges) is not provided	• Reference lists (2-3 weeks) • Syntheses of abstracts (3-6 weeks) • Briefing notes (3-6 months)	• Reference lists (approximately four pages) include summaries of relevant studies with links to relevant documents • A synthesis of abstracts (approximately 10 pages) includes a description of the interventions, their effectiveness, utility, safety (and other elements of interest based on a specific request) • A briefing note (approximately 30 pages) includes all of the above but provides a more detailed analysis of these areas based on the available evidence	• Not publicly available
Ontario HIV Treatment Network (9)	• Focused on identifying systematic reviews and primary studies when no reviews are available • No restrictions on type of evidence sought (i.e., effectiveness versus not effectiveness)	• Annotated bibliography (3-5 business days) • Rapid reviews (one month)	• 3-5 page summaries that follow a standardized reporting approach consisting of key messages, description of the issue, findings, factors that might affect local applicability, and methods	• 77 rapid reviews
Ottawa Hospital Research Institute (10)	• Primarily effectiveness and sometimes quasi-experimental studies, observational studies and economic analyses • Focused on identifying systematic reviews (single studies included when certain quality thresholds are met - e.g., prospective data collection and rigorous quantitative analysis)	• Evidence summaries (no timeline specified)	• 10-15 page summaries that provide key messages, the target audience, relevant disclosures, background, summary of included studies, bottom line statements, a reference list and methods used • Each review and study included in the evidence summaries is assigned a level of evidence, and the quality of systematic reviews is appraised using AMSTAR.	• 16 evidence summaries

Rapid-response program*	Type of evidence summarized	Products provided (and the timelines in which they are produced)	Key features of products	Volume of production**
Planning Unit of the Ontario Ministry of Health and Long-Term Care (MOHLTC)	• Focused on identifying systematic reviews and primary studies (both published and grey literature) when no reviews are available • No restrictions on type of evidence sought (i.e., effectiveness versus not effectiveness). • Websites or reports (for jurisdictional scans)	• Literature reviews (3 weeks) • Jurisdictional scans (3 weeks)	• 2-3 pages of main messages followed by the limitations of the literature reviewed, time available to produce the review, and a footnoted section with detailed findings • Each review is separately checked by another staff member for accuracy, clarity and completeness	• 500 literature reviews and jurisdictional scans (approximately)
Evidence Check (26;27)	• Not explicitly stated but the topics addressed suggest no restrictions on type of evidence sought • Evidence is identified through targeted searches for systematic reviews, primary literature, grey literature and jurisdictional scanning	• Evidence check summaries (no timeline provided on website or the program brochure)	• Reports are approximately 25-30 pages and include a 2-5 page executive summary followed by a detailed report that includes an introduction, methods and detailed findings (typically with summary tables)	• 53 Evidence Check reviews
International Healthcare Comparisons (29)	• Scope of the program includes responding to specific requests for information on international experience in areas ranging from health sector capacity planning to activity-based financing of hospitals	• Jurisdictional scans (no timeline provided on website)	• Reports are approximately 60 pages in length and include a 2-page summary followed by a detailed assessment with an overview of the findings, summary tables and country profiles	• 17 jurisdictional scans
Health Evidence Network (28)	• No restrictions on type of evidence sought (i.e., effectiveness versus not effectiveness) • Evidence is identified through a range of sources: websites, databases, technical and policy documents, national and international organizations and institutions	• Short answer by e-mail (no timeline provided); • One-page evidence summary (no timeline provided • Evidence report – a synthesis of best available evidence in response to a question from a policymaker (no timeline provided) • Joint policy brief – a synthesis of the evidence on a health system problem, policy options for addressing the problem, and key implementation considerations (no timeline provided)	• Evidence reports provide a summary that includes an assessment of the issue, findings and policy considerations, and a more detailed report that also includes the methods used • Structure of the joint policy briefs vary according to the topic addressed, but generally consist of a page of key messages followed by a more detailed assessment of the findings • All reports undergo rigorous external review, as well as internal review • Reports are provided in two or more languages	• 39 evidence reports • 30 policy briefs and summaries
SURE Project (30;32)	• Not explicitly stated (although the summary template is focused on approaches to summarizing effectiveness research)	• Rapid synthesis (no specific outline of possible timelines is provided on website, but it does indicate that responses can be provided within 24-48 hours)	• Uses a standardized structured summary template that provides the key messages, background, details about what was found (including summary tables with assessments of the strength of the evidence), and an assessment of the relevance of the research to the question asked	• 74 (but only 32 in the public domain)

* See Table 3 for an overview of the organizational features of each program.
** Assessed as of 3 February 2014.

Program feature 3 – Defining success and measuring it

To foster deliberations about how to define success and measure it, we have identified four short- and medium-term areas where success of a rapid-response program can be measured using a brief survey administered following receipt of a rapid synthesis, and short qualitative interviews approximately six months later. The four areas of success include: 1) program organization (i.e., whether the program is organized in a way that allows health system decision-makers to efficiently make a request and receive a timely response); 2) final product (e.g., was the synthesis presented in way that was easy to understand?); 3) influence on behavioural intention to use research evidence; and 4) whether and how the synthesis was used. In Table 7 we outline each of these potential areas of success and pair them with approaches to measuring whether we have been successful.

Table 7: Summary of possible indicators of success and approaches to measuring success

Where to measure success	Possible approaches to measuring whether we have been successful
Program organization	• Brief survey asking the requestor to evaluate key features of the rapid-response program (administered after receipt of rapid synthesis) • Short qualitative interviews with requestors (conducted approximately six months following receipt of rapid synthesis)
Final product (i.e., did the rapid synthesis meet the requestor's needs?)	• Brief survey asking the requestor to evaluate key features of the rapid synthesis • Short qualitative interviews with requestors asking questions about what was most and least helpful about the synthesis (six months following receipt of rapid synthesis)
Influence on behavioural intention to find and use research evidence	• Assessment of behavioural intention after receiving the rapid synthesis and six months later (assessed in survey administered after receipt of rapid synthesis and again during the short qualitative interviews six months later)
Whether and how the synthesis was used (i.e., did it support evidence-informed decision-making?)	• Short qualitative interviews with requestors about how they used the rapid synthesis (conducted six months following receipt of rapid synthesis)

We found little synthesized research evidence related to measuring any of the four areas of success (Table 5). The only systematic reviews we identified related to using the theory of planned behaviour, which has been extensively used and tested in the fields of psychology and healthcare. Specifically, we identified one older low-quality systematic review and an older overview of systematic reviews conducted in the field of psychology that found that the theory explains approximately 39% of the variance in intention, and about 27% of the variance in behaviour.(33;34) Another older but high-quality systematic review found evidence to suggest that the relationship between intention and behaviour was similar in magnitude among healthcare professionals to that found in the broader literature.(35) This successful transfer of the theory from individuals (as studied in the field of psychology) to healthcare professionals (as studied in healthcare) lends support to it similarly being successfully transferred to health system decision-makers.

For those who want to know more about the systematic reviews and studies contained in Table 8 (or obtain citations for them), a fuller description of each is provided in Appendix 3.

Table 8: Summary of key findings from systematic reviews and studies relevant to program feature 3 – Defining success and measuring it

Category of finding	Summary of key findings
Benefits	• None of the identified reviews provided information about potential benefits of this program feature
Potential harms	• None of the identified reviews provided information about potential harms of this program feature
Costs and/or cost-effectiveness in relation to the status quo	• None of the identified reviews provided information about costs and/or cost-effectiveness of this program feature
Uncertainty regarding benefits and potential harms (so monitoring and evaluation could be warranted if the program feature were pursued)	• Uncertainty because no systematic reviews were identified o None of the identified systematic reviews addressed the benefits, harms or costs of the program feature • Uncertainty because no studies were identified despite an exhaustive search as part of a systematic review o Not applicable (although three systematic reviews were identified that addressed key elements of the program feature) • No clear message from studies included in a systematic review o Not applicable (although three systematic reviews were identified that addressed key elements of the program feature)
Key elements of the program feature if it was tried elsewhere	• One older low-quality systematic review and one older overview of systematic reviews conducted in the psychology field have demonstrated that the theory of planned behaviour explains approximately 39% of the variance in intention and about 27% of the variance in behaviour.(33;34) • One older high-quality systematic review suggests that the proportion of the variance in healthcare professionals' behaviour explained by intention was similar in magnitude to that found in the broader literature.(35)
Stakeholders' views and experience	• None of the identified reviews provided information about stakeholders' views and experiences

Additional equity-related observations about the three broad features of a program

We did not identify any equity-related considerations about the three broad features of a program from the research evidence. However, we have identified some possible equity-related considerations (based on our collective experience and feedback from our steering committee) that are likely relevant to organizing a rapid-response program (program feature 1) and deciding what can be done in what timelines (program feature 2). We were unable to identify any considerations specifically related to defining success and measuring it (program feature 3). In organizing a rapid-response program, considerations related to 'small' provinces and territories are particularly important in the context of organizational governance structures and approaches to collaboration. For example, establishing a steering committee of federal, provincial and territorial health system decision-makers to provide strategic guidance to the program will need to ensure balanced representation across different health system contexts (including those from 'small' provinces and territories), and types of decision-makers from those contexts (e.g., policymakers and managers from regional authorities within provinces). Similarly, efforts to engage federal, provincial and territorial partner networks or organizations to support the production of locally applicable syntheses will require partnership building in all regions of the country. Related to deciding what can be done in what timelines, the contexts of 'small' provinces and territories will be important to consider when jurisdictional scans are completed. Specifically, when identifying what is being done elsewhere in a particular policy domain, ensuring information is gathered from all relevant jurisdictions will be critical.

IMPLEMENTATION CONSIDERATIONS

Potential barriers to developing a rapid-response program for health system decision-makers in Canada can be identified at the level of individuals, service providers, organizations and systems. A list of potential barriers to implementing the three elements is provided in Table 9

Table 9: Potential barriers to implementing the program features

Levels	Program feature 1 – Organizing a rapid-response program	Program feature 2 – Deciding what can be done in what timelines	Program feature 3 – Defining success and measuring it
Patient/individual	None identified	None identified	None identified
Service provider	Existing providers of rapid-response programs may overlap to some extent with the scope of a new program focused on producing rapid syntheses for health system decision-makers about problems, options and/or implementation considerations related to a specific health system challenge	None identified	None identified
Organization	Organizations may still lack the skills, structures, processes, and a culture to promote and use research findings in decision-making	None identified	None identified
System	Decision-makers may be reluctant to rely on a rapid-response program established in another jurisdiction Decision-makers may be reluctant to make requests to an external rapid-response program for politically sensitive issues, or to publicly disclose that they made a request Decision-makers may face difficulties in developing a shared vision for a rapid-response program given their constraints and competing priorities	Decision-makers may not be inclined to make requests to an external rapid-response program for very short timeframes (e.g., three days) given that this may already be done internally on a routine basis	Decision-makers may be reluctant to fully disclose the impact of the rapid-response program, especially on politically sensitive issues

Several of these barriers are addressed in the summary of organizational features and possible approaches to operationalizing them that we provided as part of the first program feature (organizing a rapid-response program). Given these barriers and the approaches outlined earlier about possible organizational features of a rapid-response program (see Table 1), efforts for implementing a rapid-response program for health system decision-makers in Canada could initially focus on:

1) fostering partnerships with federal, provincial and territorial health system decision-makers and stakeholders by convening a rapid-response program steering committee;
2) fostering partnerships with networks or organizations that could collaborate with the Forum to conduct syntheses to ensure relevance to provincial and territorial contexts (and/or to identify whether a synthesis has already been completed on a particular topic);
3) securing resources to formally establish and staff the rapid-response program;
4) recruiting and training staff to conduct rapid syntheses; and
5) continually refining the rapid-response program (e.g., based on deliberations during the stakeholder dialogue that this issue brief was designed to inform, the program steering committee, and from the ongoing evaluation of the program).

In addition to considering barriers to implementation and possible next steps for implementing the program features, it is important to also consider potential opportunities or 'windows of opportunity' for implementing the elements, which we outline in Table 10.

Table 10: Potential windows of opportunity for implementing the program features

Type	**Program feature 1 – Organizing a rapid-response program**	**Program feature 2 – Deciding what can be done in what timelines**	**Program feature 3 – Defining success and measuring it**
General	With the development a rapid-response program for health system decision-makers in Ontario, there is an opportunity to build on what is already in place by scaling-up to provide a pan-Canadian program. The Partnerships for Health System Improvement (PHSI) grant from the Canadian Institutes of Health Research could offer a sustainable funding opportunity (over a period of three years) to establish a pan-Canadian rapid-response program.		
Feature-specific	System leaders are increasingly working collaboratively to advance the timely translation of research evidence to improve the financing, sustainability and governance of the healthcare system (e.g., Evidence-Informed Healthcare Renewal Roundtable).	Many lessons have been learned from existing rapid-response programs at the local, national and international levels to decide what can be done in what timeframes	Approaches to evaluation used by other programs can be built upon to contribute to a broader evidence base about whether and how rapid-response programs work

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APPENDICES

The following tables provide detailed information about the systematic reviews identified for each program feature. Each row in a table corresponds to a particular systematic review and the reviews are organized by program features (first column). The focus of the review is described in the second column. Key findings from the review that relate to the option are listed in the third column, while the fourth column records the last year the literature was searched as part of the review.

The fifth column presents a rating of the overall quality of the review. The quality of each review has been assessed using AMSTAR (A MeaSurement Tool to Assess Reviews), which rates overall quality on a scale of 0 to 11, where 11/11 represents a review of the highest quality. It is important to note that the AMSTAR tool was developed to assess reviews focused on clinical interventions, so not all criteria apply to systematic reviews pertaining to delivery, financial, or governance arrangements within health systems. Where the denominator is not 11, an aspect of the tool was considered not relevant by the raters. In comparing ratings, it is therefore important to keep both parts of the score (i.e., the numerator and denominator) in mind. For example, a review that scores 8/8 is generally of comparable quality to a review scoring 11/11; both ratings are considered "high scores." A high score signals that readers of the review can have a high level of confidence in its findings. A low score, on the other hand, does not mean that the review should be discarded, merely that less confidence can be placed in its findings and that the review needs to be examined closely to identify its limitations. (Lewin S, Oxman AD, Lavis JN, Fretheim A. SUPPORT Tools for evidence-informed health Policymaking (STP): 8. Deciding how much confidence to place in a systematic review. *Health Research Policy and Systems* 2009; 7 (Suppl1):S8).

The last three columns convey information about the utility of the review in terms of local applicability, applicability concerning prioritized groups, and issue applicability. The third-from-last column notes the proportion of studies that were conducted in Canada, while the second-from-last column shows the proportion of studies included in the review that deal explicitly with one of the prioritized groups. The last column indicates the review's issue applicability in terms of the proportion of studies focused on supporting the use of research evidence. Similarly, for each economic evaluation and costing study, the last three columns note whether the country focus is Canada, if it deals explicitly with one of the prioritized groups, and if it focuses on supporting the use of research evidence.

All of the information provided in the appendix tables was taken into account by the issue brief's authors in compiling Tables 2, 5 and 8 in the main text of the brief.

Appendix 1: Systematic reviews relevant to program feature 1 – Organizing a rapid-response program

Program feature	Focus of systematic review	Key findings	Year of last search	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada	Proportion of studies that deal explicitly with one of the prioritized groups	Proportion of studies that focused on supporting the use of research evidence
Organizational features	N/A - no systematic reviews were identified						

Appendix 2: Systematic reviews relevant to program feature 2 – Deciding what can be done in what timelines

Program feature	Focus of systematic review	Key findings	Year of last search	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada	Proportion of studies that deal explicitly with one of the prioritized groups	Proportion of studies that focused on supporting the use of research evidence
What can be done to support the use of research evidence	Interventions encouraging the use of systematic reviews by health policymakers and managers(20)	There is insufficient evidence to draw conclusions about the effectiveness of interventions that encourage health policymakers and managers to use systematic reviews in decision-making.	2010	9/10 (AMSTAR rating from Program in Policy Decision-making)	3/3	0/3	3/3
	To identify and evaluate potential strategies for increasing the impact of systematic reviews on policy(18)	Facilitators for the use of systematic reviews included involving policymakers in the review process, making reviews relevant to local settings and contexts, collaboration between researchers and policymakers, and disseminating results from systematic reviews in user-friendly formats	2011	5/9 (AMSTAR rating from Program in Policy Decision-making)	7/13	0/13	13/13
	Increasing the use of research in population-health policy and programs(19)	There is little evidence about which strategies increase the use of evidence in population-health policy and programs. There is some evidence that tailored targeted messages combined with access to registries of research evidence may increase the use of research evidence in policy development. None of the included studies provided evidence that interaction between researchers and policymakers has an impact on the use of research evidence. Training in the appraisal of	2011	3/9 (AMSTAR rating from Program in Policy Decision-making)	4/5 of the intervention studies (limited details were provided about 59 descriptive studies that were included)	?/5 (not reported)	5/5

Program feature	Focus of systematic review	Key findings	Year of last search	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada	Proportion of studies that deal explicitly with one of the prioritized groups	Proportion of studies that focused on supporting the use of research evidence
		research and its use appears to increase participants' skills in critical appraisal and possibly their perceptions about the value of research (but not their use). One study evaluated the impact of using knowledge brokers, but did not find evidence to support their effectiveness.					
	Review and synthesis of the evidence base for knowledge transfer and exchange(21)	The review found inadequate evidence base for doing "evidence-based" KTE for health policy decision-making.	2005	6/9 (AMSTAR rating from Program in Policy Decision-making)	Not reported in detail (Description states that the study originated from the United Kingdom or Europe in 23 percent (*n* = 10 of 44) of the cases, while 11 percent (*n* = 5 of 44) were from the United States, and four studies were from elsewhere)	?/44 (not reported)	44/44

Appendix 3: Systematic reviews relevant to program feature 3 – Defining success and measuring it

Program feature	Focus of systematic review	Key findings	Year of last search	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada	Proportion of studies that deal explicitly with one of the prioritized groups	Proportion of studies that focused on supporting the use of research evidence
Indicators of success	Efficacy of the theory of planned behaviour(36)	Based on findings from 185 studies, the theory of planned behaviour accounted for 27% and 39% of the variance in behaviour and intention, respectively. The perceived behavioural control (PBC) construct accounted for significant amounts of variance in intention and behaviour, independent of theory of reasoned action variables. Attitude, subjective norm and perceived behavioural control account for significantly more of the variance in individuals' desires than intentions or self-predictions, but intentions and self-predictions were better predictors of behaviour. The subjective norm construct is generally found to be a weak predictor of intentions.	1997	3/11 (AMSTAR rating from the McMaster Health Forum)	Not reported	Not reported	0/185
	To assess how big the gap is between intentions and behaviour, and what psychological variables might be able to bridge the intention–behavior gap(37) *Note that this is an overview of systematic reviews.	In prospective studies, intentions account for 28% of the variance in behaviour.	Not reported (published in 2002)	No rating tool available for this type of document.	n/a	n/a	n/a
	The relationship between intention and behaviour in clinicians and how this compares to the	Ten studies were found that examined the relationship between intention and clinical behaviours in	2004	9/10 (AMSTAR rating from the	2/10	0/10	0/10

Program feature	Focus of systematic review	Key findings	Year of last search	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada	Proportion of studies that deal explicitly with one of the prioritized groups	Proportion of studies that focused on supporting the use of research evidence
	intention-behaviour relationship in studies of non-clinicians.(35)	1,623 health professionals. The proportion of variance in behaviour explained by intention was of a similar magnitude to that found in the literature relating to non-health professionals. This was more consistently the case for studies in which intention-behaviour correspondence was good and behaviour was self-reported. This review, viewed in the context of the larger populations of studies, provides encouragement for the contention that there is a predictable relationship between the intentions of a health professional and their subsequent behaviour.		McMaster Health Forum)			

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