Scaling up cancer and chronic disease prevention interventions for population impact

Report on a planning meeting
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Scaling up cancer and chronic disease prevention interventions for population impact: Report on a planning meeting

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This report is available online at www.propel.uwaterloo.ca.
Summary
Hosted by the Propel Centre for Population Health Impact, this all-day, CIHR-funded planning meeting brought together researchers, policy decision makers, funders and practitioners with experiences and interests in scaling up cancer and chronic disease prevention interventions for population health impact. The objectives of the meeting were to (1) compare and contrast preliminary findings from a CIHR-funded realist review on scaling up complex interventions with knowledge user experiences, (2) refine knowledge translation plans for study findings, and (3) identify some scaling up initiatives that may be promising to study as natural experiments.

Through tapping into the wisdom of a diversity of stakeholders and the existing knowledge base, this meeting identified both connects and disconnects between the literature and practical experiences with scaling up. A subset of these themes were explored in more detail to identify examples of existing scaling up initiatives that could be studied, as well as promising impact-oriented research directions that would translate into both academic and practical benefits. To that end, the meeting highlighted five key areas where strategic investments in research activity may be warranted, as well as the interplay between them:

I. **Relationships for scaling up**
   How can relationships enhance or inhibit scaling up progress? What kind of infrastructure and tools can support scaling up relationships? How can strong and diffuse leadership across organizations be developed and supported?

II. **Capacity for scaling up**
   This research direction may focus on a range of issues: How do you build a shared agenda among diverse groups and create collective priorities? How do you build capacity across a network? How do you build governance and leadership capacity for scaling up?

III. **Adaptation/renewal**
   This theme would focus on questions such as, What adaptation is needed for equitable scale up? How can adaptation and its impacts best be documented?

IV. **Helping it happen**
   Questions for this theme might include, What are effective methods and measures to assess capacity and readiness for scale up? What are conditions for bottom up versus top down approaches to scaling up? What are some unintended consequences of helping it happen?

V. **Evaluation**
   Questions related to evaluation could include, How can evaluation be used for accountability and to inform adaptation in scaling up? How can evaluation serve multiple
scaling up stakeholders? How can process and outcome evaluation be used to facilitate or support scale up?

While some trends are encouraging, advancing these and other scaling up research areas requires a shift in how research interacts with policy and practice. The field needs funding mechanisms that support an ongoing implementation approach and that fund evaluation beyond the life cycle of a program to enable learning about scale up, both successes and failures.

To create and sustain an ongoing research program, incremental steps might be most useful—steps that respond to practice-based needs and that align with existing knowledge gaps identified by the broader research community. Guided by the expertise from those attending this meeting, as well as other key thinkers in scaling up across Canada and abroad, the program of research developed in this forum might best evolve through a series of small-scale funded programs that make use of existing knowledge and natural experiments.

A tailored knowledge translation (KT) strategy may be developed once the review results are finalized. Knowledge users identified different areas of interest in the review and agreed that findings would be most useful if tailored to their needs. All participants acknowledged that KT for realist reviews is underdeveloped, and could be advanced with this scaling up project. For example, the research team could work with at least a subset of knowledge users to develop a tailored KT strategy and have it informed by relevant literature (e.g., KT for different types of reviews, including realist reviews).
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Appendix A: Agenda

Appendix B: Participant List

Appendix C: Presentation Slides
1. Purpose of planning meeting and report

This report summarizes the purpose, process and outcomes for a meeting entitled *Scaling up cancer and chronic disease prevention interventions for population health impact*. The meeting was hosted by the Propel Centre for Population Health Impact at a Toronto airport hotel on July 7, 2015. The idea for the meeting came from a panel of knowledge users who are currently participating in a CIHR-funded realist review on scaling up i (Principal Investigator, Riley; started October 1, 2013). The group expressed interest in learning with and from other panel members and in helping co-create a research agenda on scaling up that would emphasize learning from existing examples as they unfold (natural experiments), especially by gathering practice-based insights. The objectives of the meeting were to (1) compare and contrast preliminary findings from the CIHR-funded realist review on scaling up complex interventions ii with knowledge user experiences, (2) refine knowledge translation plans for study findings, and (3) identify some scaling up initiatives that may be promising to study as natural experiments. The meeting brought together a strategic mix of pan-Canadian and international research, policy and practice leaders, with diverse experiences in scaling up cancer and chronic disease interventions, with the intention of enhancing knowledge exchange on scaling up cancer prevention interventions and contributing to shaping future research. Support was provided through a Canadian Institutes of Health Research-Institute of Cancer Research Planning and Dissemination Grant (CIHR PCS-138841) with additional support from the Canadian Partnership Against Cancer (CPAC), and the Propel Centre for Population Health Impact.

2. Background

2.1. Improving chronic disease prevention through scaling up effective interventions

Many effective population-based interventions for addressing lifestyle and environmental causes of cancers and other chronic diseases are available. Yet, their adoption and implementation remain too modest for meaningful impact. As a result, an agenda to scale up the use of effective prevention interventions is gaining momentum in Canada and worldwide. Scaling up chronic disease prevention interventions and the impacts they can have in Canada will require addressing research and practice needs. Several knowledge gaps were identified at a first ever international conference on scaling up in 2010 and have been reinforced in more recent reports. A large gap is on scaling up complex (multi-level and multi-component) interventions that fundamentally shift the way we understand problems and needs (e.g., determinants of health approach). In addition, little attention has been given to the phases of scaling up (e.g., initiation, growth, maintenance, scaling...)

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i For the purposes of the review, scaling up is defined as “deliberate efforts to increase the impact of innovations with demonstrated effectiveness on a small scale in order to benefit more people and foster sustainable policy and program development (Simmons & Shiffman, 2007)”.

ii An intentionally coordinated set of multi-sectoral intervention components that target more than one level in a socio-ecological system (e.g., intrapersonal, interpersonal, community settings, society) (Kickbusch,1989); are tailored to the implementation context (Hawe, Shiell & Riley, 2004); and may act both independently and interdependently (Shiell, Hawe & Gold, 2008).
down less effective interventions), and different pathways for scaling up (e.g., vertical scaling up through system levels, horizontal scaling up across sectors within a system level). While a large and diverse number of factors that influence scaling up have been identified, little is known about the relationships or interplay among these factors, including the critical role of context.

These knowledge gaps informed the currently funded realist review on pathways for scaling up complex interventions. Additional knowledge gaps may be usefully filled by learning from experiences and other natural experiments on scaling up prevention interventions.

2.2. Planning grant meeting design
The one-day meeting involved a panel of knowledge users, presentations, small group work, and facilitated large group discussions. The agenda (Appendix A) was designed for sessions to be built on previous ones and correspond to the three meeting objectives. The invitation list was intentionally kept relatively small, at 20 people; a core group included members of the Knowledge User Panel for the knowledge synthesis and a few members from a second Expert Panel of academics with expertise in scaling up and/or realist review methods. We also extended invitations to a small group of people whose perspectives contributed to the meeting’s objectives and complemented those of other participants. Four international participants joined the morning sessions by videoconference (see Appendix B for a participant list).

3. Main points from meeting discussions

3.1. Insights from practical experiences
Given that the initial impetus for this meeting was to enable sharing of practical experiences related to scaling up, the meeting began with a panel of knowledge users, who shared insights from their own scaling up experiences. The PowerPoint slides from the presentations by Dr. Jon Kerner, from the Canadian Partnership Against Cancer (CPAC), and Marie Chia, from the Public Health Agency of Canada (PHAC), are included in Appendix C. In their descriptions of the initiative that was scaled up, they provided reflections on what actions supported scaling up and what enabled or constrained those actions (e.g., contextual factors). Other participants had the opportunity to share and discuss their own scaling up experiences during a facilitated discussion that followed the panel presentations.

Summary of practical insights
What follows is a summary of factors that were perceived to be important influences on scaling up. These arose as common themes from panel presentations, as well as the full group facilitated discussion that followed. In addition to the individual factors identified, there was strong recognition that the interaction between factors is an important focus and potential area of study.

A. Readiness for scale
Scaling up is a deliberate process to increase the reach and impact of interventions; however, not all interventions are ready to scale up. A readiness-to-scale framework has been developed by PHAC based on the literature and their experiences with the *Innovation Strategy (IS)* population health intervention
research grants. Currently PHAC is validating and testing this assessment approach to determine how well it predicts readiness to scale up. There is still much to learn, including determining if the current domains are the correct ones to assess readiness, if and how domains interact with each other, and if some domains should be weighted more heavily than others.

**B. Leadership**

Leadership plays a large role in determining how interventions are scaled and disseminated. A diverse leadership team (including members from research/policy/practice) can help to facilitate information exchange through a mixture of communication methods (e.g., peer-reviewed publications and grey literature). Effectiveness of scale up processes may be enhanced where leadership has “soft skills,” in addition to strong strategy/vision.

**C. Funding**

Dependable, long-term funding can increase the likelihood of successful scale up, and may also incentivize organizations to adopt an innovation in the first place. However current funding lengths are typically only two to three years, which impedes scaling.

**D. Partnerships/collaboration**

Collaboration and partnership building are a critical components of any scaling up efforts; however, there is still much to be learned about the relationships needed for successful scale up (especially with growing emphasis on private sector and public partnerships). Funding for scaling up needs to include resources to develop relationships and find common ground. This may be part of funders’ role in “helping it happen” (see below).

**E. Funders’ role in helping it happen**

Funders of scale up struggle to discern their roles in effectively supporting scale up. Providing resources is one role, but what other roles are appropriate (e.g., convening, brokering relationships etc.)? Helping it happen needs to take place across multiple levels, including at the practitioner, management, and system level. (This theme and potential areas for learning are explored further in section 3.4.4.)

**F. Natural innovation**

In some health promotion settings, scaling up happens naturally. Do funding priorities displace the scale up of innovations that happens organically? And how can this be balanced with the need to ensure scaling of evidence-based interventions?

**G. Balancing fidelity and adaptation**

Ideally, evidence-based and effective components of interventions should not be compromised; however, flexibility to adapt to the implementation context may be necessary to facilitate successful scaling up. This balance requires funders to understand and embrace the need for flexibility and emerging adaptation.
H. **Infrastructure/organizational capacity**

Given that scale up requires an infrastructure for wider delivery, it is important to consider points of weakness or limiting factors. With national organizations and initiatives, there can be discrepancies in resources available across provinces and this can be a barrier to scaling up efforts in areas with fewer resources.

3.2 **Insights from scaling up literature**

A key purpose of the meeting was to compare and contrast participants’ practical experiences with findings from a realist review on scaling up. To this end, a presentation on the review methods and preliminary findings was the focus of a second presentation.

3.2.1 **Overview of scaling up realist review**

The CIHR-funded scaling up realist review aims to increase understanding of the effective scale up of complex interventions aimed at public health outcomes and their determining conditions and contextual factors. The focus is on the patterns and pathways for scaling up complex interventions, with an emphasis on relationships between interventions and contextual factors, mechanisms by which interventions are effective, and population health outcomes.

A realist review methodology is being used to identify what works for whom, under what circumstances, how and why? It explores the interaction between actions in contexts (C), their generative mechanisms (M), and the outcomes they influence (O), collectively referred to as CMOs. A case study approach was selected to explore questions of how, why, and for whom (Yin 1994) for six case examples. The PowerPoint slides from the presentation by Dr. Cameron Willis (in Appendix C) provides additional detail on the review methods.

3.2.2 **Summary of initial review findings**

Preliminary results of the review were presented at this meeting and provided some examples of “context-sensitive evidence scenarios,” drawing on three cases examples as illustrations. See Appendix C for slides describing these preliminary results.

Next steps to complete the review include (1) continuing the single and cross case analysis, (2) considering additional cases, (3) linking theory to observed CMO combinations, and (4) verifying findings with key informants.

Questions from participants and the discussion following the presentation of preliminary findings focused on the following issues:

**Temporal framework**

The possibility of sequential firing of the mechanisms identified in the review was discussed: for example, where particular mechanisms may lead to other mechanisms later in the scaling up process. As timelines were explicitly extracted as part of the review, these temporal connections, as well as the roles of different actors at different points in time, may be explored as part of future analyses.
Application of theory

Participants discussed the potential to link explicit theories that support or refute the findings in the next stages of the review (e.g., social movement theory). Many theories (like social movements) are not a linear process and the focus on ‘pathways’ in the review recognizes that scaling up can be more of a social change strategy.

Bias in literature

A question was raised about whose perspectives are being represented in the literature, and if that may influence the review findings. For example, if evaluators control the discourse, could this elevate the importance of evaluation? Another potential bias may be in positive reporting and the paucity of negative scaling up cases in the literature. An important step in the review will be engaging with knowledge users to assess the degree to which review findings resonate with their experience.

Levels of mechanisms

Mechanisms identified in the review are generic by design and could be applied at multiple levels by multiple agents. Ongoing interrogation of the data may give shape to these mechanisms at the different levels being activated.

3.3 Compare and contrast practical insights with literature

What follows are mechanisms that were identified by participants as being consistent (connects) or not (disconnects) between practical insights and the literature. A subset of these themes was prioritized for greater exploration and discussion in small groups (see section 3.4).

Connects

- Tension between fidelity and adaptation/renewal
- Value of networks and connectedness for acceleration and amplification of efforts
- Role of leadership at both the initiative and project /community level
- Engagement at multiple levels (including political engagement)
- Personal relationships and their role in influencing trust (in leadership, etc.), confidence and commitment
- Importance of influential champions in moving things forward
- Importance of training/skills enhancement or development (strong in practice)
- Importance of evaluation and the various types of evidence that are needed

Disconnects

- Capacity of staff/leadership, who may not be prepared for scaling or know how to do it
- Not clear in practice how much uncertainty is a mechanism vs. a by-product of processes and context
- The role of volunteers/volunteer engagement is crucial to scaling up, but little mentioned in the literature or even the sheer amount of in-kind contributions needed
- Commitment: there is a temporal difference in commitment between organizations (e.g., may be short for community organizations vs. long for civil society)
• Commitment at the micro level (due to high turnover)
• Urban vs. rural scaling up: literature tends to point to insights that lend themselves to an urban context
• Not clear what types of evaluation or if evaluation is as critical in practice as it appears from literature/analysis
• Where is governance structure? (And how this evolves as programs unfolds)
• Outcome visibility beyond the program/funders perspective
• Non-linear process and organic evolution of projects
• Contingency: sometimes these processes happen through chance or as the result of random connections
• How knowledge exchange contributes to the regeneration of the intervention/initiative
• Unanticipated contextual issues that amplify or dampen scaling efforts
• How to support more reflection and a culture of learning

3.4 Emerging action learning agenda on scaling up
Based on the morning’s discussion, a short list of possible themes for an action learning agenda on scaling up was considered. The directions were refined and prioritized, with five identified for further exploration: (1) relationships/trust/engagement, (2) capacity, (3) adaptation/renewal, (4) helping it happen, and (5) evaluation. Participants discussed key areas of learning and examples that could provide insights for each theme, first in small groups and then with the full group.

3.4.1 Relationships, trust, engagement
Participants discussed building relationships, engagement and trust at multiple levels, and the key areas of learnings as they pertain to scaling up:

• What is the role of political engagement in scaling up?
• How can trust be built during times of uncertainty?
• How do relationships enhance or inhibit scaling up progress?
• How do you get people to come together and agree to an approach, especially with different ideologies?
• How do you make critical conversations happen? What kind of infrastructure and tools could be brought forward to support these conversations and relationships (e.g., concept mapping, partnership development, etc.)?
• How do time constraints and required deliverables impact trust and engagement?
• Do strategic relationships for scaling up need to be planned more deliberately?
• How to look at the evolution and development of relationships over time?
• What is the role of power in scaling up relationships and how does that play out in networks, especially among initiatives working across different parts of the system?
• Can increased knowledge of the policy process reduce distrust and increase the ability of scientists to effectively use policy levers to promote an evidence-based process?
• How can leadership be sustained over the extended time required for scaling up?
• How can strong, diffused leadership for scaling up be developed and supported across organizations?

Some examples identified that could provide insights into understanding scaling up relationships included Screening Saves Lives (Canadian Cancer Society – Ontario division), Vibrant Communities (Tamarack), TEACH (Ontario), the Comprehensive Cancer Control Initiative (Centers for Disease Control and Prevention), Prevention Research Centres (US), and the East Scarborough Store Front Initiative.

3.4.2 Capacity
Participants discussed scaling up capacity development as multi-dimensional and multi-levelled. They identified the following key areas of learning:

• How can capacity be developed to identify and address systemic barriers (resulting from working across sectors and/or organizations)?
• How can capacity be built within a network (including evaluation capacity)?
• How do you build governance for scaling up? What does good leadership look like for scaling up? How do you “sell” or influence others to support scaling up?
• How to build in a learning dimension to scaling up work? How do you build capacity to learn and adapt as you go?
• How do you build a shared agenda among diverse groups and interests and create collective priorities?
• How can ownership of wicked problems be addressed (e.g., climate change)?

Some potential examples to provide insights into scaling up capacity include Farm to Cafeteria Canada, Vibrant Communities (Tamarack), Ottawa Charter on marketing to kids, the Canadian Stroke Strategy (Heart and Stroke Foundation), Coalitions Linking Action and Science for Prevention (Canadian Partnership Against Cancer), and the Innovation Strategy (Public Health Agency of Canada).

3.4.3 Adaptation/renewal
In discussions about this theme, renewal was conceived as broader than at a site level and more about paradigm shifting or revolution of an issue, rather than simply changing to meet context needs. Participants identified key areas of learning:

• How can we learn from examples in field that are balancing fidelity and adaptation?
• Are there examples where adaptation of a rigorously tested intervention has led to an increase in voltage? (Chambers, Glasgow & Stange, 2013)
• What adaptation is needed for equitable scale up? How to address disparities despite the fact that where there is need, there is often less capacity?
• What are the core components of an initiative/program needed for legitimacy, but that allow for flexibility?
• What is the difference between proactive vs. reactive adaptation? When should a program be sunsetted (rather than adapted)?
• How can adaptation, and its impact on success and failure, be documented?
3.4.4 Helping it happen

The discussion around how to help scaling up happen identified a number of potentially important roles: convening stakeholders, leveraging relationships, providing governance structures, negotiating to find common ground, and helping to build trust. Key areas of learning emerged from the discussion:

- What methods and measures can be used to assess capacity and readiness for scale up?
- What are conditions for bottom-up vs. top-down scaling up approaches?
- How to build governance and leadership capacity for scale up?
- What kind of core competencies are needed to make helping it happen work?
- How to support equitable scale up? How can funders proactively engage and support capacity where there is need for specific initiatives?
- What are the unanticipated effects of helping it happen rather than allowing groups to do it themselves? (Does it limit local capacity?)
- What are some opportunities to learn from failed examples of helping it happen?
- How to build in evaluation and allow for unexpected consequences?
- How can funders and recipients both inform learning?
- How to plan for pitfalls ahead of time and addresses them when they happen?

The Public Health Agency of Canada is currently looking at learnings across funded projects that are part of their Innovation Strategy, including what didn’t work. Some other potential examples for learning about helping it happen include the First Nations Tripartite Agreement (BC) and Pathways to Health Equity.

3.4.5 Evaluation

In general, participants felt that there is a gap in capacity and understanding of evaluation when it comes to scaling up. Some key areas of learning related to evaluation were identified:

- How can adaptation necessary to enable local ownership be supported? (ties into partnerships)
- What can be learned from practitioners? What tools are needed to support and document practice based evidence and integrate it into core practice?
- How can adaptation be supported but still allow for accountability? What can we learn from funders who have embraced adaptation?
- How could funding agencies interested in supporting scale up pool their resources to create a community of practice around adaptation and tap into the skill base in a more systematic way?

Examples of adaptation and renewal in scaling up may be found in the application of the Comprehensive School Health framework, CLASP (CPAC), Body and Soul (a community-based program designed to increase fruit and vegetable consumption in the US), and the Innovation Strategy (PHAC). It was also suggested that looking beyond high income countries may identify good examples of bottom-up innovations.
• How evaluation can be used for accountability and to inform adaptation?
• What does an evaluation that can serve multiple stakeholders look like?
• Who is responsible for the evaluation in scaling up? Are resources provided?
• Knowing how best to evaluate and when? How do you hone in on critical data and optimize use of existing data? (Capacity issue)
• How can process and outcome evaluation be used to facilitate or support scale up?
• How can a developmental mixed methods approach be used to enable unexpected (and important) learnings to emerge?
• How to assess traditional causal relationships and the more nuanced contributions (e.g., partnerships)?
• How can failed scale up examples be documented to enable learning about what doesn’t work?

There are a number of relevant examples of evaluating scaling up from which to learn including Coalitions Linking Action and Science for Prevention (Canadian Partnership Against Cancer), the Innovation Strategy and Multi-Sector Partnerships to Promote Healthy Living and Prevent Chronic Disease (both funded by the Public Health Agency of Canada), the Building Resilient Neighbourhoods project (in BC), and the East Scarborough Storefront project (in Ontario).

3.5 Next steps
This planning meeting successfully identified promising directions for an emerging research agenda on scaling up chronic disease prevention interventions, based on both practical experiences and the preliminary results of a scaling up realist review. Participants and other key thinkers working in this area are invited and encouraged to consider these directions in their own work and in collaboration with others.

Over the coming months, the applicant team will be developing and refining elements from the planning meeting, continuing to extend and advance learnings from the scaling up review, and exploring funding options that might provide good opportunities for some initial research projects.

As a general approach, incremental steps might be most useful—steps that respond to practice-based needs and that align with existing knowledge gaps identified by the broader research community. An initial program of research might best evolve through a series of small-scale funded programs that incorporate some main elements from the meeting, such as learning from existing examples as they unfold (natural experiments), using mixed methods to uncover unanticipated effects of scaling up, and focusing on understanding what works, what doesn’t work, and why?

A tailored KT strategy may be developed once the review results are finalized. Knowledge users identified different areas of interest in the review, and agreed that findings would be most useful if tailored to their needs. It was acknowledged by all participants that KT for realist reviews is under-developed and could be advanced with this scaling up project. For example, the research team could work with at least a subset of knowledge users to develop a tailored KT strategy informed by relevant literature (e.g., KT for different types of reviews, including realist reviews).
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1. National Collaborating Centre for Methods and Tools (2010). *Effective interventions: The*


