

HEALTH FORUM

Context

- Health- and social-system leaders in Canada are increasingly grappling with the best ways to identify and then support the adoption, spread and scaleup of a wide range of innovations that have the potential to transform health and social systems and improve population health and well-being.
- Health- and social-system innovations are often thought of as new technologies relying on software and hardware (e.g., new devices to remotely monitor patients at home, or new systems using artificial intelligence to collect and analyze serviceuser information). However, they can also include new ways of doing things at a system level that may or may not involve new technologies, such as:
 - o new ways to govern health and social systems that meaningfully engage citizens in decision-making processes about broad system-wide transformation (which was the focus of a stakeholder dialogue recently convened by the McMaster Health Forum, and which highlighted the importance placed on this particular type of innovation among decision-makers in Canada)
 - o new ways to deliver services (e.g., mobile outreach for enhancing access to a range of health and social services)
- analysis
 - o new ways to fund health and social systems or to pay the professionals working in them (e.g., by using more flexible funding models that enable new and innovative ways of delivering services and adapting them to local contexts)
 - o new policies to include equity, diversity and inclusion considerations
 - o new ways to better integrate health and social services.
- Broadly focused initiatives within Canadian jurisdictions like <u>Alberta Innovates</u>, as well as targeted conversations about how to support specific types of innovation - such as technology-enabled healthcare in Ontario, which was the focus of an evidence brief and stakeholder dialogue and a conference convened by AMS Healthcare that leveraged insights from the dialogue - illustrate the primacy of this issue among decision-makers across the country. This interest will only grow as new technologies with transformative potential, such as generative artificial intelligence, are developed and offer new ways to solve health and social problems.

Rapid Synthesis

Assessing the effectiveness of organizations that support the spread and scale of health- and social-system innovations

6 March 2024

[MHF product code: RS 117]

Box 1: Evidence and other types of information

+ Forms of domestic evidence used



Qualitative insights

Evaluation

E

+ Global evidence drawn upon



Evidence syntheses selected based on relevance, quality, and recency of search

+ Other types of information used



Jurisdictional scan (Five countries: AU, CA, IL, U.K., U.S.)

* Additional notable features

Prepared in 30 business days using an 'all hands-on deck' approach, and included nine innovation frameworks in the

- Unfortunately, Canada has a long history of struggling and sometimes failing to adopt innovations in health and social systems. Failure to adopt, spread and scale electronic medical records, virtual care and interdisciplinary teams in healthcare are often-cited examples of these challenges.
- To improve the situation, it is important to understand what is known from the best-available evidence and from the experiences of other jurisdictions about how to support the spread and scale of innovations, and about the efforts organizations including governments, arms-length government agencies and non-governmental organizations can pursue to support health- and social-system innovation. Box 1 provides an overview of the types of evidence and other information we drew upon to address the questions outlined below.

Questions

- What is known about the effectiveness of organizations that support the spread and scale of health and social innovations at the level of professionals, organizations and systems, including how and why they 'work' and how they measure their performance?
- What Canadian organizations support the spread and scale of health and social innovations at the level of systems, organizations and professionals, what approaches do they use (e.g., design thinking) and what have evaluations of them found, as well as what can be learned from their counterparts in other countries?

High-level summary of key findings

Key findings from highly relevant evidence documents

- We identified 37 evidence documents, including nine innovation frameworks, 19 evidence syntheses, and nine single studies that described the role of organizations in the spread and/or scale of health and social innovations at the levels of systems, organizations and professionals.
- We found that the identified evidence documents predominately focused on the health system and referenced organizations as a general concept, with little to no mention of the specific type of organization (e.g., governmental, arm's-length government agency), or about which organizational approaches are most 'effective' in supporting the adoption, spread and scale of innovation.
- The concept of 'innovation' was seldomly defined, with some evidence syntheses mentioning that programs, services, products and technologies were considered innovations.
- The evidence documents reported approaches for organizations that can support the scale and/or spread of health and social innovations, while generally describing key ingredients to support successful scale-up (e.g., identifying priorities, building capacity, supporting the design, implementation and evaluation of pilots, facilitating peer sharing, coordinating large-scale engagement, aligning legislation and regulatory tools). We found a concentration of evidence documents that combined two or more approaches, but the impacts of these approaches were rarely described.

Key findings from the jurisdictional scan

- We included a purposive sample of 38 organizations or processes that support the spread and scale of health and social system innovations.
- This included 29 organizations or processes from Canada, including nine at the national level and 20 at the provincial level, as well as 12 international organizations, including one from Australia, one from Israel, six from the U.K. and four from the U.S.
- In general, our scan identified predominantly government, arms-length or not-for-profit organizations working with innovations at all levels in health systems.
- All approaches outlined in the organizing framework were covered by the 38 organizations, however we did see concentrations of approaches across organizations, including many identifying and communicating innovation priorities, building capacity and capability for spreading and scaling, supporting the design, implementation and

evaluation of pilots, and facilitating peer sharing and learning. Relatively fewer organizations used the final three approaches of the framework (coordinating large-scale engagement, aligning legislation and regulatory tools, and investing in and incentivizing change). Relatively few outcomes resulting from innovation supports were identified for any of the organizations, and those that were identified pertained primarily to process outcomes (i.e., number of trainees, amount of funds provided to innovations) rather than health or social outcomes.

Framework to organize what we looked for

We organized our findings using the following framework:

- Focus of organizations supporting the spread and scale of innovations
 - Health system
 - Social system
- Type of organization
 - o Governmental
 - o Arm's-length government agency
 - o Non-governmental, not-for-profit
 - Non-governmental, for-profit
- Level targeted for innovation
 - System arrangements
 - o Organizations
 - o Programs and services
 - Health and social professionals
 - Products and technologies
- Extent of change supported
- Radical innovation
- o Incremental innovation
- Object of innovation supports
 - o Structural innovation
 - o Process innovation
 - Adoption of new products, services and technologies
 - Implementation of an agreed upon innovation
- Approaches used to support adoption, spread and/or scale of innovations
 - Identifying and communicating priorities

Box 2: Approach and supporting materials

We identified evidence addressing the question by searching Health Systems Evidence, Social Systems Evidence and PubMed to identify evidence syntheses, protocols for evidence syntheses and primary studies. We also hand-searched the appendices of relevant contextualized evidence syntheses prepared by the McMaster Health Forum for evidence documents and frameworks that were relevant to the research questions. All searches were conducted on 12 February 2024. The search strategies used are included in Appendix 1.

We identified jurisdictional experiences by purposively sampling jurisdictions, and then organizations within them, known to focus on innovation. We hand searched websites for information relevant to the question from organizations in five countries: Australia, Canada, Israel, the U.K. and the U.S. We engaged subject matter experts to help identify jurisdictions and organizations that should be included as part of our assessment.

In contrast to our rapid evidence profiles, which provides an overview and insights from relevant documents, this rapid synthesis provides an in-depth understanding of the evidence.

We appraised the methodological quality of evidence syntheses that were deemed to be highly relevant using AMSTAR. Note that quality appraisal scores for evidence syntheses such as rapid syntheses/reviews are often lower because of the methodological shortcuts that need to be taken to accommodate compressed timeframes. AMSTAR rates overall quality on a scale of 0 to 11, where 11/11 represents an evidence synthesis of the highest quality. It is important to note that the AMSTAR tool was developed to assess evidence syntheses focused on clinical interventions, so not all criteria apply to evidence syntheses pertaining to delivery, financial or governance arrangements within health systems or to broader social systems.

A separate appendix document includes:

- 1) methodological details (Appendix 1)
- 2) a summary table of key findings from highly relevant evidence documents and frameworks (Appendix 2)
- 3) a summary table of experiences from Canadian provinces and territories (Appendix 3) and other countries (Appendix 4)
- 4) detailed findings from frameworks (Appendix 5), relevant evidence syntheses (Appendix 6) and single studies (Appendix 7) we identified
- 5) documents excluded at the final stages of reviewing (Appendix 8)
- 6) references (Appendix 9).

- Building capacity and capability for spreading and scaling
- o Supporting the design, implementation and evaluation of pilots
- Facilitating peer sharing and learning
- o Coordinating large-scale engagement
- o Aligning legislation and regulatory tools
- o Investing in and incentivizing change

What we found

We identified 37 evidence documents relevant to the question. The evidence documents include:

- Nine innovation frameworks
- 19 evidence syntheses
- Nine single studies

We outline in narrative form below our key findings related to the question from highly relevant evidence documents and based on experiences from the jurisdictional scan of four countries and all Canadian provinces and territories (see Box 2 and Appendix 1 for more details).

A summary of the evidence organized by approaches used to support adoption, scale and/or spread of innovations is provided in Appendix 2, while a summary of the experiences from other countries and from Canadian provinces and territories is provided in Appendix 3 and 4. Detailed data extractions from each of the included evidence documents is provided in Appendices 5 (frameworks), 6 (evidence syntheses) and 7 (single studies). Hyperlinks for documents excluded at the final stage of reviewing are in Appendix 8.

Key findings from highly relevant evidence sources

We identified 37 evidence documents, including nine innovation frameworks, 19 evidence syntheses and nine single studies that described the role of organizations in the spread and/or scale of health and social innovations at the levels of systems, organizations and professionals.(1-37) We found that the identified evidence documents predominately focused on the health system and referenced organizations as a general concept, with little to no mention of the specific type of organization (e.g., governmental, arm's-length government agency). Additionally, the concept of 'innovation' was seldomly defined, with some evidence syntheses mentioning that programs, services, products and technologies were considered innovations. We also found that the evidence syntheses did not explicitly define the extent of supported change (i.e., radical or incremental innovation). Often, the innovation was to improve process, adoption of new products, services and technologies, or the implementation of an agreed upon innovation. We found related evidence syntheses to the listed approaches found in the organizing framework that support adoption, spread and/or scale of innovations. A summary of our main findings organized by the components of the organization framework addressed by the evidence documents we identified is provided below, while detailed information can be found in Appendices 2, 5, 6 and 7.

Identifying and communicating priorities

We found three evidence syntheses (one high-quality, one medium-quality and one low-quality), a qualitative study, and three innovation frameworks that described the importance of identifying and communicating priorities. (1-3) The evidence syntheses described the use of stakeholder analysis and frameworks that allow organizations to state their purpose and reason for pursuing an innovation in their context, with an emphasis on understanding the influences of power dynamics, professional interest, and preference for evidence. (1-3) Similarly, the qualitative study focused on understanding the 'value' of an innovation within the U.K. context, where the authors recommended that it was important to appropriately assess the full value of innovations in the present moment (rather than the

future) to align incentives for investment in research and development (and ultimately, decisions about whether it should be adopted).(4) The three innovation frameworks described specific steps to support the identification and communication of priorities. For example, the Diffusion of Innovation model recommend organizations to complete steps such as 'agenda setting, matching, defining, clarifying and routinizing' to ensure appropriate adoption.(5) This was similarly described in the World Health Organization's ExpandNet framework and the consolidated framework for scaling-up health interventions. In terms of reported impact, the authors of the latter framework concluded there was a likely chance that the innovation could be fully scaled when organizations first define the 'scalable unit' and successfully implement the innovation (without extraneous resources).(6; 30)

Building capacity and capability for spreading and scale

Three medium-quality evidence syntheses and two innovation frameworks reported findings related to building capacity and capability for spreading and scaling.(5; 7-10) The evidence syntheses indicated that capacity building could involve distributing governance, engaging different voices and being open to employee-driven approaches during problem identification, generation of solutions, and development and testing of an innovation. One evidence synthesis indicated that 'absorptive capacity' (e.g., an organization's ability to identify, assimilate, transform and apply knowledge) was an effective organizational resource to successfully implement new innovations. Another evidence synthesis reported improved institutional and organizational structures, efficiency, productivity, quality and safety, and cost savings when organizations were open to employee-driven innovations. The innovation frameworks generally described the importance of 'innovation system' fit (e.g., motivation, ability) to take on spread and scale of an innovation. However, the authors of the frameworks indicated that it was often difficult to predict the uptake, use and impact of the technology or the investment needed to keep the innovation running (e.g., the lack of a dedicated budget to support implementation and maintenance).

Supporting the design, implementation and evaluation of pilots

The WHO ExpandNet framework recommended that organizations advocate for longer funding cycles in order to allow for appropriate scale-up processes that involves the use of both qualitative and quantitative methods to document and test proof-of-concepts and proof-of-implementation that often takes a longer time than the usual funding cycles to show promise.(6)

Facilitating peer sharing and learning

One low-quality evidence synthesis and one single study reported that leveraging networks and other organizations are enabling factors to peer sharing and learning.(11; 12) The evidence synthesis identified additional enablers such as openness to sharing knowing and practices, establishment of mutual trust, governance policies to facilitate peer sharing and learning, and tools for conflict resolution.(11)

Coordinating large-scale engagement

Two evidence syntheses (one medium-quality and one low-quality) briefly described the benefits of coordination of large-scale engagement.(13; 14) The medium-quality synthesis described that collaboration between government and external parties (including customers) could improve innovation performance for everyone within that context. Additional enablers included effective leadership and governance, consideration of legal and intellectual property issues, a supportive culture, and funding.(14) The low-quality evidence synthesis advocated for radical innovations but indicated that large-scale coordination across multiple people required communication, established organization procedures and significant investments.(13)

Aligning legislation and regulatory tools

We identified one medium-quality evidence synthesis and two single studies that provided insights about legislation and regulatory tools.(15-17) Generally, legislation and regulatory tools used in the scale and/or spread of innovations were not described in detail, with the evidence synthesis indicating that local-level capacity building and lack of human resources are bottlenecks in the innovation pipeline.(15) However, two single studies indicated the benefits of legal frameworks and recommended a few approaches that would benefit from legislation, such as establishing a neutral third-party entity to regulate information technology innovations, forming a 'contract resource organization' for vendors, implementing standards and regulations, establishing formal evaluation criteria, and formalizing incentive structures.(16; 17)

Investing in and incentivizing change

Three evidence syntheses (one high-quality, one medium-quality, and one low-quality) indicated potential funding options for innovations, but did not describe the role of organizations in detail. (18-20) Generally, the evidence syntheses indicated that successful innovation processes could be associated with dedicated funding (e.g., publicly funded grants, subsidies for private entities, tax incentives, funding for incubators and accelerators). However, we did not find any evidence documents that reported impact.

A combination of approaches listed above

We identified three medium-quality evidence syntheses, three primary studies, and two innovation frameworks (Implementing Best Practices Consortium Framework and the Framework for Spread) that described a combination of two or more of the approaches listed in the organization framework.(21-28) For example, the evidence syntheses and innovation frameworks reported similar steps for organizations to consider such as identifying the problem, agreeing on the desired changes and priorities, supporting the design, implementation and evaluation of pilots, supporting the innovation environment, involving key partners to develop a scaling-up strategy, and communicating the results of scaled-up practices.(21-28) The Implementing Best Practices Consortium framework reported that organizations that were open to change and had support were likely to have more success with introducing and scaling up new evidence-based practices than organizations that resist or have little experience with change.(28) An evaluation of the Public Health Agency of Canada's Innovation strategy reported that successful scaled-up innovations often scored high on system readiness, organizational capacity, policy influence, ability to develop context-specific partnerships and community engagement, and focus on sustainability.(27)

Key findings from jurisdictional scans

For the jurisdictional scan, we looked to organizations at both the national and provincial and territorial levels in Canada, as well as national levels in Australia, Israel, the U.K. and the U.S. As there are a significant number of organizations supporting the spread and scale of innovations in health and social systems, a comprehensive scan was out of scope. Instead, we used a purposive sampling approach based on previous work that had been conducted by staff at the McMaster Health Forum as well as input from subject matter experts conducting research in this area. We included 29 organizations or processes from Canada, including nine at the national level and 20 at the provincial level. We did not identify any organizations in the territories.

Internationally, we included 12 organizations of which one was from Australia, one from Israel, six from the U.K., and four from the U.S.

Key findings from Canadian experiences

At the federal level in Canada, we included five non-governmental, not-for-profit organizations as well as three governmental processes that support the spread and scale of innovations. Of the five organizations, three are specific to health-system innovations (<u>CAN Health Network, Canada Health Infoway</u> and <u>Healthcare Excellence Canada</u>) while two focus on social-system innovations. Organizations targeted multiple levels, but two of the organizations – <u>CAN Health Network</u> and <u>Canada Health Infoway</u> – specifically targeted health products and technologies. Apart from these two organizations that target products and technologies, the level targeted for innovations and the object of innovation supports was often difficult to determine. Of the five organizations, four of the five used approaches include CAN Health Network identifying market-ready needs and communicating this to companies developing innovations or <u>Social Research and Demonstration Corporation</u>'s efforts to analyze survey and administrative datasets to identify areas where innovative solutions are needed. Three of the five organizations were identified as facilitating peer sharing and learning and investing in and incentivizing change. Only one organization, Canadian Infoway, was identified as aligning legislation and regulatory tools, largely through their work with governments, to develop <u>best practices and guidance</u> for the use of health technologies.

We also identified three processes – two governmental and one non-governmental not-for-profit that received government funding – that facilitate peer sharing and learning about scaling and spreading innovations. These are <u>THINC Knowledge and Mobilization Impact Hub</u>, <u>CIHR's Best Brains Exchange</u> and the SPOR SUPPORT Unit's Learning Health System Community of Practice.

In addition to the federal level, we included 18 provincial organizations and processes with seven coming from Ontario and three from Quebec. In all provinces except Ontario, we identified provincial organizations responsible for scaling and spreading innovations. Examples include <u>Innovate BC</u>, <u>Alberta Innovates</u>, <u>Health Innovation Hub</u> (Nova Scotia), and <u>Innovation PEI</u> among others. Different arrangements support these organizations: some have been identified within government, such as the <u>Office of Health and Social Services Innovation</u> in Quebec; some are arm's length governmental bodies such as the <u>Health Innovation Acceleration Centre</u> in Newfoundland and Labrador; and some are established as non-government not-for-profits that receive some provincial government funding. There was variation among organizations with respect to the level targeted for innovation, extent of change supported, and object of innovation supports. This is partly because many organizations support many different types of innovations and have many different approaches to do so. We identified that most provincial organizations used approaches to:

- build capacity and capability for scaling and spreading, for example through training programs and one-on-one coaching
- support the design, implementation and evaluation of pilots
- invest in and incentivize change, for example through direct funding, grant funding or matching innovations with venture capital.

What is missing from many of these organizations are approaches that explicitly coordinate large-scale engagement for innovations to accelerate the process of wide-scale tests of change and at-scale implementation.

In addition to the organizations mentioned above, we identified a few processes in Ontario that support the spread and scale of innovations. Examples of these include the McMaster Health Forum <u>horizon scanning panels</u>, which aim to identify priorities for innovation, or the <u>Best Practice Spotlight Organization</u> designation that supports building capacity and capability for spreading and scaling of innovations targeting health professionals through knowledge translation strategies.

Though we were unable to identify outcomes for the work of many of the organizations, some examples of outcomes that were identified include:

- Innovation Saskatchewan has provided \$100,000 dollars for Saskatchewan-based start-ups in 2023
- the Social Innovation Office in Manitoba has fostered an innovative program that reunites Indigenous families in the foster care system that is currently being piloted with 200 families
- Unity Health's Upstream Lab in Ontario developed a novel income security program to provide primary care patients with taxation and social services support, which is now being replicated in Manitoba.

Key findings from international experiences

Of the 12 international organizations included, 10 are focused entirely on health systems, while two – a nongovernmental not-for-profit organization, <u>Nesta</u>, and a non-governmental for-profit organization, <u>The Innovation</u> <u>Unit</u> – work in both health and social systems. Many of the organizations targeted many levels of innovations, however, one organization from Israel, <u>the Healthhub</u>, two organizations from the U.K. (<u>Digital Health Hubs</u> and the <u>Health Innovation Network</u>) and one from the U.S. (<u>KP Health Innovation</u>) focus exclusively on scaling and spreading health technologies and products.

In both the U.K. and the U.S., there are large organizations, such as <u>the Health Foundation</u>, the Agency for Healthcare Research and Quality and Institute for Healthcare Improvement, that support health innovations at many levels, predominantly through approaches that identify and communicate priorities, build capacity and capability, and support the design, implementation and evaluation of pilots. A particularly interesting example of this work is the <u>REAL evaluations Centre</u> run out of the Health Foundation in the U.K. which provides rapid evaluation services for innovations, including system arrangements, programs and services to support continuous learning and improvement.

A final innovative example because of the scale at which it works is the <u>Centre for Medicare and Medicaid</u> <u>Innovation</u>, which is part of the Department of Health and Social Services in the U.S. Its mandate is to develop, test, evaluate and scale payment and service delivery models in the Medicare and Medicaid state health systems. The approaches used include coordinating large-scale engagement, aligning legislation and regulatory tools, and investing in and incentivizing change. The Centre has <u>launched over 50 demonstration projects</u>; however, while many of achieved improved health outcomes among Medicare and Medicaid patients, only six of them have achieved savings for the Department.

References

- 1. Turner S, D'Lima D, Hudson E, et al. Evidence use in decision-making on introducing innovations: A systematic scoping review with stakeholder feedback. *Implementation Science* 2017;12(1): 145.
- 2. Reid B, Davis L, Dordon L. Capturing what and why in healthcare innovation. BMJ Leadership 2023;7(4): 307-313.
- 3. Franco-Trigo L, Fernandez-Llimos F, Martínez-Martínez F, Benrimoj SI, Sabater-Hernández D. Stakeholder analysis in health innovation planning processes: A systematic scoping review. *Health Policy* 2020;124(10): 1083-1099.
- 4. Claxton K, Longo R, Longworth L, McCabe C, Wailoo A. NICE decision support unit methods development. The Value of Innovation. London: National Institute for Health and Care Excellence (NICE); 2009.
- 5. Singhal A, Dearing J. Communication of innovations: A journey with Ev Rogers. 2006. Available from: https://sk.sagepub.com/books/communication-of-innovations.
- 6. World Health Organization. ExpandNet. World Health Organization,; 2011. <u>https://expandnet.net/tools/</u> (accessed 06 March 2024).
- 7. Côté-Boileau É, Denis JL, Callery B, Sabean M. The unpredictable journeys of spreading, sustaining and scaling healthcare innovations: A scoping review. *Health Research, Policy and Systems* 2019;17(1): 84.
- 8. Greenhalgh T, Robert G, Macfarlane F, Bate P, Kyriakidou O. Diffusion of innovations in service organizations: Systematic review and recommendations. *Milbank Quarterly* 2004;82(4): 581-629.
- 9. Cadeddu SBM, Dare LO, Denis JL. Employee-driven innovation in health organizations: Insights from a scoping review. *International Journal of Health Policy and Management* 2023;12: 6734.
- 10. Greenhalgh T, Wherton J, Papoutsi C, et al. Beyond adoption: A new framework for theorizing adn evaluating nonadoption, abandonment, and challenges to the scale-up, spread, and sustainability of health and care technologies *Journal of Medical Internet Research* 2017;19(11): e367.
- 11. Silva AL, Guerrini FM. Self-organized innovation networks from the perspective of complex systems. *Journal of Organizational Change Management* 2018;31(5): 962-983.
- 12. Nolte E, Groenewegen P. European Observatory policy briefs. How can we transfer service and policy innovations between health systems? Copenhagen (Denmark): European Observatory on Health Systems and Policies; 2021.
- 13. Cillo V, Petruzzelli AM, Ardito L, Del Giudice M. Understanding sustainable innovation: A systematic literature review. *Corporate Social Responsibility and Environmental Management* 2019;26(5): 1012-1025.
- 14. Lockhart DE. Open innovation: Accelerating innovative products and services through the Department of Defense acquisition management system. Maryland: University of Maryland University College; 2018.
- 15. Coroa RDC, Gogovor A, Ben Charif ALI, et al. Evidence on scaling in health and social care: An umbrella review. *The Milbank Quarterly* 2023;101(3): 881-921.
- 16. Makhni S, Atreja A, Sheon A, Van Winkle B, Sharp J, Carpenter N. The broken health information technology innovation pipeline: A perspective from the NODE health consortium *Digital Biomarking* 2017;1(1): 64-72.
- 17. Homma A, Tanuri A, Duarte AJ, et al. Vaccine research, development, and innovation in Brazil: a translational science perspective. *Vaccine* 2013;31 Suppl 2: B54-60.
- 18. Weber P, Birkholz L, Kohler S, et al. Development of a framework for sclaing up community-based health promotion: A best firt framework synthesis *International Journal of Environmental Research in Public Health* 2022;19(8).
- 19. Porter JJ, Birdi K. 22 reasons why collaborations fail: Lessons from water innovation research. Environmental Science & Policy 2018;89: 100-108.
- 20. Sabet S, Heard A, Brown A. Science, technology, innovation and partnerships for development: An evidence gap map. London; 2017.

- 21. Institute for Healthcare Improvement. Innovation at a glance: Framework for spread and scale-up. Washington DC; 2010.
- 22. Manyazewal T, Woldeamanuel Y, Oppenheim C, et al. Conceptualising centres of excellence: A scoping review of global evidence. *BMJ Open* 2022;12(2): e050419.
- 23. Bayuo BB, Chaminade C, Göransson B. Unpacking the role of universities in the emergence, development and impact of social innovations: A systematic review of the literature. *Technological Forecasting and Social Change* 2020;155: 120030.
- 24. Sjöö K, Hellström T. University–industry collaboration: A literature review and synthesis. *Industry and Higher Education* 2019;33(4): 275-285.
- 25. Moroz I, Archibald D, Breton M, et al. Key factors for national spread and scale-up of an eConsult innovation. *Health Research, Policy and Systems* 2020;18(1): 57.
- 26. Sandhu S, Sendak MP, Ratliff W, Knechtle W, Fulkerson WJ, Jr., Balu S. Accelerating health system innovation: Principles and practices from the Duke Institute for Health Innovation. *Patterns* 2023;4(4): 100710.
- 27. Bradley Dexter S, Payne L, Kavanagh Salmond K, Mahato S, Chia MC, Robinson K. Readiness for scale-up: Lessons learned from the Public Health Agency of Canada's innovation strategy. *Canadian Journal of Public Health* 2021;112(Suppl 2): 204-219.
- 28. Implementing Best Practices Consortium. Guide to fostering change to scale up effective health services. 2013.
- 29. Damschroder LJ, Reardon CM, Lowery JC. The consolidated framework for implementation research (CFIR). *Handbook on implementation science* 2020: 88-113.
- 30. Barker PM, Reid A, Schall MW. A framework for scaling up health interventions: lessons from large-scale improvement initiatives in Africa. *Implementation Science* 2016;11: 12.
- 31. Chambers DA. The interactive systems framework for dissemination and implementation: enhancing the opportunity for implementation science. *American Journal Of Community Psychology* 2012;50: 282-284.
- 32. Reid JR WP, Kuluski K Actioning the Learning Health System: An applied framework for integrating research into health systems. *SSM Health Systems* 2023.
- 33. Gupta A, Thorpe C, Bhattacharyya O, Zwarenstein M. Promoting development and uptake of health innovations: The Nose to Tail Tool. *F1000Res* 2016;5: 361.
- 34. Godfrey CM, Kircher C, Ashoor HM, et al. Absorptive capacity in the adoption of innovations in health: a scoping review. *JBI Evidence Synthesis* 2023;21(1): 6-32.
- 35. Mitra S, Ashby J, Muhumuza A, et al. Surgathon: a new model for creating a surgical innovation ecosystem in low-resource settings. *BMJ Global Health* 2020;5(2): e002162.
- Smithman MA, Descôteaux S, Dionne É, et al. Typology of organizational innovation components: building blocks to improve access to primary healthcare for vulnerable populations. *International Journal of Equity Health* 2020;19(1): 174.
- 37. Ong M. A comprehensive framework identifying barriers to global health R&D innovation and access. *BMJ Global Health* 2023;8(9).

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