Strategizing Research for Impact

Une recherche stratégique pour exercer un impact

COMMENTARY

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ABSTRACT

In its Strategic Plan 2021–2026*, the Canadian Institutes of Health Research – Institute of Health Services and Policy Research (IHSPR) convincingly expresses its desire to expand capacity for applied health services and policy research (HSPR) and better mobilize research results for health system transformation geared toward the Quadruple Aim and health equity for all (CIHR IHSPR 2021). These strategic*

priorities echo views widely shared within the HSPR community, and we commend IHSPR for its leadership and vision. Recognizing the systemic challenges ahead of us, this commentary considers the HSPR community's capacity to achieve the promise of learning health systems, given the obstacles likely to hinder their rapid scale-up over the next five years. Next, we consider the spread of virtual care during the pandemic to illustrate the embedded and negotiated nature of innovation in health systems and the need for vigilance as to the social distribution of their benefits and costs. Finally, a critical review of the strategic plan provides insights into how research is governed in the HSPR field. Based on this analysis, it appears essential to reconsider health system transformation as social system transformation and strengthen interdisciplinary and comparative research. Looking forward, developing a science of science to better understand the conditions associated with high-impact research should be a cross-cutting priority for Canada's HSPR community.

RÉSUMÉ

Dans son Plan stratégique 2021-2026*, l'Institut des services et des politiques de la santé (ISPS) des Instituts de recherche en santé du Canada exprime de façon convaincante sa volonté d'accroître la capacité de recherche appliquée sur les services et les politiques de santé (RSPS) et de mieux mobiliser les résultats de recherche pour la transformation du système de santé en fonction des quatre objectifs et de l'équité en santé pour tous (CIHR IHSPR 2021). Ces priorités stratégiques font écho à des points de vue largement partagés dans le milieu de la RSPS et nous félicitons l'ISPS pour son leadership et sa vision. Reconnaissant les défis systémiques qui nous attendent, le présent commentaire se penche sur la capacité du milieu de la RSPS à tenir la promesse de systèmes de santé apprenants, compte tenu des obstacles susceptibles d'entraver leur mise en œuvre rapide dans les cinq prochaines années. Ensuite, nous commentons l'utilisation accrue des soins virtuels pendant la pandémie pour illustrer le caractère intégré et négocié de l'innovation dans les systèmes de santé et pour démontrer la nécessité d'une vigilance quant à la répartition sociale de leurs avantages et de leurs coûts. Enfin, un examen critique du Plan stratégique donne un aperçu de la façon dont la recherche est gouvernée dans le domaine de la RSPS. Sur la base de cette analyse, il apparaît essentiel de reconsidérer la transformation du système de santé comme une transformation du système social et de renforcer la recherche interdisciplinaire et comparative. À l'avenir, le développement d'une science de la science, pour mieux comprendre les conditions associées à la recherche à fort impact, devrait être une priorité transsectorielle pour le milieu canadien de la RSPS.*

Introduction

In his introductory message to the Institute of Health Services and Policy Research's (IHSPR's) *Strategic Plan 2021–2026*, its scientific director, Rick Glazier, aptly summarizes the many tensions and paradoxes besetting health systems in the post-COVID-19 era (CIHR IHSPR 2021: 5). The decision to *Accelerate Health Care System Transformation through Research to Achieve the Quadruple Aim and Health Equity for All* (CIHR IHSPR 2021) and address the structural, functional and environmental challenges facing health systems in Canada is wise, engaging and inspiring.

IHSPR's strategic plan is exemplary in many respects. Drawing on extensive stakeholder consultations and multiple sources of information, IHSPR's approach to setting priorities in the midst of a pandemic must be commended. The strategic plan reflects a clear desire to expand capacity for applied health services and policy research (HSPR) and more effectively convert research results into usable knowledge for health system transformation and improvement. It justly emphasizes the importance of digital health solutions and draws needed attention to the intersections between HSPR and public health. Most importantly, it anchors HSPR in a limited set of core concepts such as the Quadruple Aim, equity, learning health systems (LHSs) and knowledge mobilization (CIHR IHSPR 2021: 4), concepts that have become increasingly accepted within the international research community. As such, we may consider that IHSPR has demonstrated the normative leadership expected by the Canadian HSPR community.

On the face of it, the plan would seem to successfully position our community to address the complex health system challenges observed across the country. We do note, however, a strong deterministic logic underpinning the plan and the vision for HSPR, reflected in statements such as "The role for health services and policy research is to provide leading-edge input to inform health care system transformation is clear: research investments must be made in areas of high need, where there are gaps in evidence, and where there is potential to positively impact the lives of people, the health of populations and the performance of the health system" (CIHR IHSPR 2021: 6). IHPSR's core functions follow a similarly deterministic logic: support knowledge creation, build capacity, foster knowledge mobilization, connect and partner to optimize impact and celebrate and recognize excellence and impact (CIHR IHSPR 2021: 8). A clear pathway for high-performing health systems, right? We suggest that as scientists, cautious skepticism must remain our best companion.

Let us keep in mind that despite progressive increases over the last decade, HSPR's share of research money remains modest. In addition, lessons learned from successes and failures of previous strategic endeavours are not described in the current plan, and one may wonder whether they have been thoroughly evaluated and understood. Moreover, despite the promising nature of the 2021–2026 strategic priorities, they require a leap of faith since no metrics or measurable targets for tracking progress are presented. Nor is it clear whether and how the research impact measurement system developed by the Canadian Health Services and Policy Research Alliance is expected to be used (CHSPRA 2018).

What is clear is that we have a long and winding road ahead: health systems across Canada still display many vulnerabilities, and the overall performance of Canada's health system is average at best (Forest and Martin 2018; Osborn et al. 2017). Our health systems contain many important assets (e.g., clinical and research networks, digital platforms, decision support systems, structures for patient partnership, etc.), and yet across jurisdictions we remain far away from having fully operational LHSs, as leaders face considerable difficulties in connecting these assets to enable learning and sustainable improvement (Lavis et al. 2018). The pace of innovation is accelerating, thanks to basic research and to the digital revolution, but it is also driving cost increases and health inequities (Lorenc et al. 2013). Finally, politics too often trumps evidence in health policy arenas.

This commentary considers how and under what conditions IHSPR's strategic

priorities could help us tackle the complex challenges inherent to health system transformation. The promise and challenges related to the development and spread of LHSs will first be discussed. Building on the lessons learned from the large-scale adoption of virtual health during the pandemic, we will then illustrate some of the issues pertaining to responsible innovation and value-based, equitable health system transformation. Finally, we discuss the way we govern research in the HSPR domain and share insights on how to balance the creation of knowledge or the search for new understanding of problems and solutions with the goal of producing usable knowledge for policy makers and health system leaders.

Advancing LHSs across Canada

IHSPR's third strategic priority explicitly identifies the development of LHSs as a means through which the HSPR community can advance the Quadruple Aim and achieve health equity for all. According to the National Academy of Medicine, learning systems share certain characteristics – including a digital infrastructure that captures the care experience, a scientific infrastructure that enables real-time access to evidence and knowledge, mechanisms for engaging and empowering patients, incentives aligned for continuous improvement and high-value care, processes to ensure access to supportive system competencies and leadership committed to a culture of learning (Institute of Medicine et al. 2013). Indeed, what makes LHSs distinct is the way these various structures and mechanisms are deeply embedded within the system and aligned with the purpose of accelerating learning and improvement (Menear et al. 2019).

IHSPR's strategic plan – with its focus on supports for digital health ecosystems, funding opportunities fostering engagement and collaboration between researchers and other health system partners and modernized HSPR training programs – offers great promise as we collectively build the environmental conditions needed for the emergence of LHSs in Canada. However, as noted by the Health Foundation, the implementation of such systems is best understood as an ongoing journey and not a destination (Foley et al. 2021). Furthermore, many challenges, including several outside of the control of researchers and research funders, are likely to hinder a rapid scale-up of the LHS concept over the next five years: cultures within health organizations that are not aligned with the LHS vision, data sharing challenges and mismatches between the design of our digital infrastructures and the features needed to support continuous learning and improvement, insufficient financial supports and incentive systems, minimal evaluation of innovations, limited collaboration between some important system actors (e.g., industry partners) and an inadequate regulatory environment (Menear et al. 2019; Morain et al. 2017). These obstacles can be overcome, but this will take time and require strong and sustained commitment from leaders at multiple levels. IHSPR and its research community must be among these leaders, but we will not fulfill the promise of LHSs without the help of others.

And it may be that the greatest promise of LHSs is not how they support the routine mobilization of knowledge to clinical practice but instead how they foster a continuous questioning of how we frame problems in the first place, how we think about the types of evidence or knowledge that are needed to tackle these problems and how we collectively pursue health system change in new and innovative ways. Such "double loop" learning, so fundamental to learning organizations, should not be lost at the systems level. The

strategies proposed by IHSPR in relation to its third strategic priority (e.g., innovations in research funding design, supporting science on science) suggest that they may have the reflexive posture necessary to share this vision with other LHS leaders.

Public Policy and System Governance as Foundational Levers for Health System Transformation and Innovation

The COVID-19 pandemic is a textbook case for providing an overall diagnosis of other challenges that may have been in the blind spot of the dominant paradigm on innovation and digital health.

The pandemic was a powerful accelerator of innovation in health systems. After decades of integration difficulties, virtual care became, at various points during the pandemic, the main channel for delivering care and services (Alami et al. 2021). The pandemic has also revealed the extent to which digital infrastructure and technologies have become a primary need in the population. They have emerged as a human right to health as they are necessary to access essential treatments and services (Mazzucato et al. 2018).

At the onset of the pandemic, virtual care was mainly presented as a "virtually perfect" solution (Alami et al. 2021; Hollander and Carr 2020). Political, regulatory, financial and governance barriers were removed in record time (e.g., physician remuneration, telephone consultations, virtual prescribing, reserved acts, virtual consent) (Alami et al. 2021). The "Remote by default" and "digital-first" models were privileged, with good social acceptability (Andrews et al. 2020). At the same time, a part of the population was not ready or equipped to benefit from such a revolution (Alami et al. 2021). Technology thus became an additional barrier for certain disadvantaged populations (e.g., rural, Indigenous, homeless, disabled, isolated elderly, immigrant) to access care and services and may have exacerbated gaps in health.

This echoes studies on innovations, but which are not sufficiently considered. These have already shown that early adopters of innovations benefit more than others, which may perpetuate and/or exacerbate inequalities (Weiss and Eikemo 2017), a phenomenon known as "intervention-generated inequalities" (Lorenc et al. 2013). In this regard, policies and actions in health systems have historically prioritized effectiveness and efficiency over equity and inclusion and have not sufficiently considered the social distribution of benefits and risks of innovations.

The pandemic has provided a valuable window of opportunity to question and re-evaluate our approach to innovation in health systems. More attention should be paid to the fact that innovations are embedded, negotiated and used within wider socio-political, economic, ideological and symbolic processes (Kickbusch et al. 2021). The achievement of their value promise depends on complex systemic and structural contexts, dynamics and contingencies that go beyond the simple issue of interoperability and technological infrastructure (even if important). In this vein, we have to accept the fact that engagement of decision makers and integrated knowledge translation strategies, while essential, will not eliminate the many obstacles to innovation associated with the complexity of interconnections between representations, social structures and knowledge (Fortunato et al. 2018).

Knowledge as a Key Strategy for Health System Transformation

Looking at IHSPR's fourth strategic priority and at the foundational act behind the creation of CIHR, let us now consider the delicate balance between the search for new understanding of problems and solutions and

the goal of producing usable knowledge for health system leaders.

Throughout the years, various strategies like integrated knowledge translation, research alliances and dedicated agencies have been established to promote evidence-informed policies and decision making and increase the impact of research on health system transformation and improvement. These strategies have led to greater collaboration between the research community and decision makers and have informed policies and decisions from time to time. Much energy has been invested to increase the instrumental function of knowledge and the competencies researchers must develop to improve their impact on decisions and practices (McMahon et al. 2019). Less attention has been paid to the types of knowledge that are needed to better understand and influence health system transformation and improvement.

In the HSPR field, discovery science is not just about strategies and techniques to improve services and outcomes. It also involves a systematic and critical assessment of problem framing, of competing theories and on the generation of integrative frames to better grasp the subtleties and complexity of the empirical world (Greenhalgh and Papoutsi 2018; Turner et al. 2016). Knowledge on context, problems and solutions based on a new synthesis between political science, population health and organizational science, for example, may be required but not necessarily demonstrate an immediate potential for application. Growing attention to the importance of context in implementation and improvement sciences are indications of the importance of revisiting predominant theories and methodologies.

A careful reading of IHSPR's strategic plan reveals several characteristics of the way we govern research in our domain. First, IHSPR's four strategic priorities primarily focus on impact- or outcome-driven research. Of course, impact on health system transformation and improvement can be broadly defined, but this is not the route taken in the strategic plan. As mentioned earlier, the strategic priorities emphasize a deterministic view of research and do not explicitly discuss the importance of understanding and shaping realities through innovative frames and concepts. The enlightenment function of research – and more specifically of social science – identified more than 60 years ago by Carol Weiss (1977) as a realistic and effective pathway of influence, needs to be revived and valued in our conversations around high-impact research (Weiss 1977). Second, the strategic plan overemphasizes the engineering of research for external purposes at the expense of valuing a reflexive stance on the types of knowledge we need in our field. IHSPR proposes to develop a science of science to better understand the conditions associated with high-impact research (CIHR IHSPR 2021: 19). This is a promising route to pursue, which may open genuine debates around some of the prevailing views in our field and support reflexive dialogue with policy makers and decision makers. Third, there is no mention in the plan of an essential feature of the HSPR community – that is, that it is composed of multiple epistemic communities with their own theories and methodologies and consequently their own views of how to define high-impact research. By pursuing these three lines of inquiry, our research community will be in a better position to define the content of a science of health system transformation and improvement. It will also be in a better position to locate the pursuit of high-impact research within the diversity of knowledge and perspectives that inhabit the field of health system transformation and improvement.

In conclusion, health system transformation has been, as recognized in IHSPR's strategic plan, a challenging and, at times, disappointing journey (Forest and Martin 2018). Decades of research reengineering based on an instrumental ideology to maximize impact has not culminated in large-scale improvements. One hypothesis that explains such stasis is that there has been a decline in the richness of a field that has become too constrained by a deterministic logic over time. The ability to look at health system transformation as social system transformation and to benefit from interdisciplinary and comparative research has similarly declined over time. One of the priorities for the years to come should thus be about promoting more diversity and inclusivity within our research community and on this basis create new alliances with all concerned groups and stakeholders, including the policy- and decision-makers' communities. While the current focus on equity, diversity and inclusion in research is necessary, an explicit assessment and valuation of the disciplinary mix of our epistemic communities is warranted. Second, it is also time for us to rethink our exchange, translation and co-production vehicles for health system changes. Initiatives and structures to favour a continuous and reflexive dialogue between research community and policy makers, system leaders, politicians and decision makers of all sorts, including citizens, are still in their infancy. We need to build on CIHR's legacy in this regard and go even further. High-impact boundary work across scientists' and policy makers' communities may require a growing attention to the many meanings of a science of science in HSPR. Fundamental questions around the governance of research in our domain need to be answered, and IHSPR is in a privileged position to address these questions. This should be a fifth, cross-cutting, transformative strategic priority for IHSPR.

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