# The Necessary – but Not Sufficient – Leadership of Research to Transform the Health Systems

COMMENTARY

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**ABSTRACT**

*Building on its remarkable achievements, the Institute of Health Services and Policy Research (IHSPR) is leading the reflection on the strategic orientations that should prevail over the next five years in this domain. IHSPR's first priority calls for a significant paradigm shift to establish learning health systems, while the three others are addressing the challenges of the aging population, integration of eHealth technologies and financial sustainability.*

*Transitioning towards a learning health system will require that dynamics among all actors be leading to a culture of continuous quality improvement. Training a new generation of researchers will not be sufficient, as all health systems stakeholders need to be engaged. In our view, it calls for a political impetus to create the conditions that will bring research and the health systems leaders together, including through concerted actions and financial incentives.*

*There are reasons to be optimistic, particularly when we consider the context of natural experiments emerging from 13 Canadian healthcare systems and the existence of several public organizations bridging research with the health system acting as change agencies. Hopefully, policymakers will join the research community to better understand how to achieve this paradigm shift toward learning health systems.*

In this publication, Tamblyn et al. (2016) review some of the impressive achievements of the Institute of Health Services and Policy Research (IHSPR), which has contributed, in a relatively short time, to a significant increase in the capacity for health services and policy research in Canada. Rather than being satisfied with the status quo, the Institute has continued to demonstrate outstanding leadership by helping to build a Canadian Health Services and Policy Research Alliance (CHSPRA), which has led to the formulation of a common vision and a consensus on strategic priorities for research.

Aligning itself with the results of the rigorous process that was followed to achieve this consensus, the IHSPR plans to focus efforts on four strategic priorities during its next activity cycle: the first priority is aimed at building the capacity to transform the health system by increasing the number of researchers and scientists better prepared to support the move toward a learning healthcare system. The other three are aimed at supporting the development of new models of service delivery that will meet the needs of an aging population, at taking advantage of technological developments (eHealth) and at examining new funding mechanisms that are more effective and better aligned with system objectives.

We believe that the IHSPR's first priority reflects a significant paradigm shift in the health system – the maturation of a movement toward cooperative exchange between research and health systems that began with knowledge transfer and has continued with co-construction. The integration of research projects within healthcare organizations has indeed become the norm. Even the training of health executives has benefited from this same momentum, as illustrated by the FORCES/EXTRA (http://www.cfhi-fcass.ca/WhatWeDo/extra) program, a unique environment to learn how to integrate knowledge management within their work.

Through this strategic priority, the IHSPR plans to support change by redefining the role and the contribution of researchers. In a sense, research would aim to transform the system by changing the nature of research

itself in order to induce a move toward a learning health system that develops and applies relevant knowledge in all its activities, rigorously and efficiently. Thus arises the question as to whether or not research should reach out to assist other agencies and actors within the health system who must also redefine their roles, responsibilities and accountability? How can research assist others in adopting the same project and vision and in transforming the way the health system itself functions so that it truly becomes a learning system?

A learning health system must have a strong capacity for uptake, given the constant influx of new knowledge. It also requires the ability to organize and manage complex bodies of knowledge that are rapidly evolving, as well as the capacity to apply this knowledge through the implementation of small- and large-scale changes, so as to continuously improve its activities. The adoption of innovations by health agencies involves complex dynamics within and between their components as well as with the political, social and knowledge contexts (Damschroder et al. 2009; Greenhalgh et al. 2004). Its many facets call for the involvement of a broad range of actors, including organizations that evaluate new technologies or produce guidelines, along with the leaders, managers and clinicians who apply them.

It is well documented and widely recognized that health systems are complex adaptive systems, with an intrinsic potential for adaptation and continuous improvement. However, channelling this potential to produce more health more efficiently requires that the political, managerial and practice environment must change. Models of innovation adoption have shown that for a learning system to take root, internal capacity for adaptation and continuous improvement must be developed (Baker et al. 2008), as demonstrated by several examples (Intermountain Health, Kaiser-Permanente, Veterans Administration, etc.). In Canada, certain organizations have succeeded in building this internal capacity for change, but we have not yet succeeded in generalizing it throughout our system.

> *A learning health system must have a strong capacity for uptake …*

Therefore, we must also continue to strengthen our health system's internal capacity. It is only if this internal capacity exists that we can expect to create real synergy between a new generation of researchers and the actors engaged in policymaking, system governance and service management and delivery. This synergy must ultimately become embedded in our values and culture, in the functional dynamics of agencies and of the system, and not just crop up within a succession of disconnected projects.

Indeed, multiple research, development and partnership initiatives and programs have attempted to foster greater internal capacity for integrating innovations and redefining service provision models, with varying success. In this regard, we believe that health services and policy research should aim not only to develop the next generation of researchers but also to help develop the next generation of decision-makers, managers and clinical champions. The call for a new paradigm cannot be carried forward only by researchers and scientists producing new knowledge on health services and policies. It necessarily requires a significant and substantial convergence of decision-making within the system.

In addition to changing the research ecosystem – essentially driven by its funding mechanisms of projects and the structure of its programs – that of the health system must also evolve. We submit that it has become essential, as for instance with the Strategy for

Patient-Oriented Research (http://cihr-irsc.gc.ca/e/41204.html), for the governing bodies of the health system and those of research funding to collaborate more closely, to develop strategic partnerships for concerted action, focused on service and policy innovation and performance improvement.

Such a project is beyond the scope of research funding agencies alone. It requires a political impetus to establish objectives and mandate such a transformation. In our view, the policymakers alone can breathe the required energy into the co-construction of a relationship between research and the health system that will embody the paradigm shift toward learning systems. Recently, several countries that have initiated an overhaul of their system have been broadly inspired by the Triple Aim approach (Berwick et al. 2008). This concept distils within it the key principle of balancing three essential goals of a learning system that must emerge from such a transformation: it must simultaneously ensure population health, the quality of the patient experience and value for money. The adoption of such a vision and the resulting realignment of the levers of change could prompt adjustments in the research and management ecosystems, and thereby create the conditions that will encourage researchers, managers and policymakers to engage in concerted actions likely to lead to profound change.

> *Canada has several assets that can facilitate the paradigm shift …*

It has become common knowledge that financing and funding mechanisms play an essential role in the dynamics of the health system. This is the focus of the Institute's fourth strategic priority. However, here again, we need to go further than examining the benefits and adverse effects of different alternatives, such as performance versus activity-based funding. Identifying value-aligned financing modalities is definitely needed, but being able to lead change toward such a fundamentally different environment is critical (Conrad et al. 2014). It is imperative that we comprehend, and ultimately overcome, the reasons why we do not succeed in moving away from our current approaches to adopt better ones. What are the political and organizational factors that hinder the integration of funding mechanisms aligned with the improvement of the quality of care and services? These are other important questions on which research should shed light.

Despite the above mentioned significant challenges, there are reasons to remain optimistic. Canada has several assets that can facilitate the paradigm shift contemplated by the IHSPR and many actors of the health system. First, as Tamblyn et al. indicate, the 13 provincial and territorial health systems within Canada provide an environment amenable to natural experiments, offering a much broader range of opportunities for innovation than would a single system. Moreover, each of these systems is structured according to diverse forms of regionalization, the *de facto* common denominator of health policy in Canada. Based on a recent study, a vision emerges for learning, high-performing regionalized health systems and for territories where healthy public policies can be implemented (Bergevin et al. 2016). Managing integrated, regionalized health systems as results-driven health programs, as well as involving professional – including physicians – and citizens in clinical governance and leadership, as partners for accountability and for experimentation with new payment models, appear particularly timely. Regionalization thus provides both an impetus and a context for greater collaboration between research and health policy, emphasizing the need for bringing together these two worlds if we are to develop a learning health system in Canada.

How can research and the health systems jointly take full advantage of this potential for experimentation? What effective research coordination and knowledge adoption mechanisms should we promote? This conversation ought to include provincial and federal health research funders and health charities, as well as non-governmental organizations, academia and health industries. The Canadian Health Services and Policy Research Alliance might also act as a catalyst in this endeavour. Another of our critical assets is the existence, across Canada, of several well-established public organizations that support the management of information and knowledge. We can draw on the expertise of numerous organizations, including Canadian Institute for Health Information, Canadian Foundation for Health Improvement, Canadian Patient Safety Institute, Accreditation Canada, Provincial Quality Councils, Provincial SUPPORT Units, Health Quality Ontario, Institute of Clinical Evaluative Sciences, Institute of Health Economics Alberta, McMaster Health Forum, etc. This is also the type of work that we strive to do more of at the INESSS in Quebec. The health systems that set examples for the efficacy of their transformation have relied on such structures and have demonstrated the essential role they play, as is eloquently illustrated by the example of the National Institute for Health and Care Excellence (NICE) in the United Kingdom. The contribution of public agencies devoted to knowledge management and its integration in the transformation of the system is, in our view, essential to the emergence of a learning system and the sustainability of the desired linkage between the worlds of health research and decision-making.

The vision pursued by the IHSPR reflects its bold ambitions regarding the contribution of research to health services and policy. It is hoped that the next federal/provincial/territorial health agreement will integrate these issues and invite stakeholders to commit to working toward modernizing the health system, with the invaluable insights of research, to allow the system to learn from innovation and continuous quality improvement. Research doubtless has an essential role to play in producing knowledge that sheds light on how to improve health services and practices. We believe it has to contribute significantly to assisting political leaders, managers and professionals in the health system in better understanding not only what must be done but also how can we can get there, working together.

## References

Baker, G.R., A. Macintosh-Murray, C. Porcellato, L. Dionne, K. Stelmacovich and K. Born. 2008. *High Performing Healthcare Systems: Delivering Quality by Design*. Toronto, ON: Longwoods Publishing Corporation.

Bergevin, Y. et al. 2016. "Towards the Triple Aim of Better Health, Better Care and Better Value for Canadians: Transforming Regions into High Performing Health Systems." Manuscript submitted for publication.

Berwick, D.M., T.W. Nolan, and J. Whittington. 2008. "The Triple Aim: Care, Health, and Cost." *Health Affairs* 27(3) : 759–69.

Conrad, D.A., D. Grembowski, S.E. Hernandez, B. Lau and M. Marcus-Smith. "Emerging Lessons from Regional and State Innovation in Value-Based Payment Reform: Balancing Collaboration and Disruptive Innovation." *Milbank Quarterly* 92(3): 568–623.

Damschroder, L.J., D.C. Aron, R.E. Keith, S.R. Kirsh, J.A. Alexander and J.C. Lowery. 2009. "Fostering Implementation of Health Services Research Findings into Practice: A Consolidated Framework for Advancing Implementation Science." *Implementation Science* 4: 50. doi:10.1186/1748-5908-4-50.

Greenhalgh, T., G. Robert, F. Macfarlane, P. Bate and O. Kyriakidou. "Diffusion of Innovations in Service Organizations: Systematic Review and Recommendations." *Milbank Quarterly* 82(4): 581-629. doi:10.1111/j.0887-378X.2004.00325.x.

Tamblyn. R., M. McMahon, J. Nadigel, B. Dunning and E. Drake. 2016. "Health System Transformation through Research Innovation." *Healthcare Papers* 16(Special Issue, September): 8–19. doi:10.12927/hcpap.2016.24719.