Getting to Now: The Challenge of Stimulating Innovation in Complex Systems

INTRODUCTION

Adalsteinn D. Brown, DPhil
Editor-in-Chief, *Healthcare Papers*
Director, Institute of Health Policy, Management and Evaluation
Dalla Lana Chair in Public Health Policy
Dalla Lana School of Public Health, University of Toronto
Toronto, ON

William Charnetski, LLB
Chief Health Innovation Strategist
Ontario Ministry of Health and Long-Term Care
Toronto, ON

In this issue of *Healthcare Papers*, Anne Snowdon (2017) clearly articulates the elements necessary for a health system innovation agenda. Although these steps are not easy – witness the slow progress of the adoption and diffusion of innovation across Canadian healthcare – they are relatively simple and provide a nice counterpoint to our usual concerns about how to effect change within the complex environment of healthcare. Sarah Padfield (2017) helps Professor Snowdon's case by making it clear that there are multiple strong examples of how to build the necessary elements of an innovation agenda from other industries as well as some emerging examples in healthcare.

All of the authors in this issue re-enforce the importance of particular elements or the feasibility of taking some of the first hard steps. Building on extensive scholarly work, Gail Tomblin Murphy and colleagues (2017) lay out how policy can support or hinder innovation

in healthcare and Peter Vaughan (2017) shows that it is possible to shape policy making and public administration structures to support innovation. The commentary by Richard Barker with Tara Donnelly (2017) and that by David Williams and colleagues (2017) lay out the arguments from the perspective of technological and service innovation. Finally, John Garcia (2017) shows how we can innovate in policy and practice within the often-overlooked area of health promotion and Cameron Piron (2017) reminds us of the importance of building cultures of (serial) entrepreneurship.

Finally, all of these papers must be seen against the backdrop of major strategies for more innovation at the federal level – see *Unleashing Innovation* by David Naylor and his colleagues on the Advisory Panel on Healthcare Innovation (Naylor 2015) – and at the provincial level like the final report of the Ontario Health Innovation Council (OHIC 2015), the latter of which is being expanded and executed by the province's Office of the Chief Health Innovation Strategist. Given all of this direction and support, why is the Canadian healthcare system still so starved of innovation?

The first issue is a simple one around return on investment (or innovation). In his review of the relationship between cost and quality for the Health Foundation, John Ovretveit (2009) noted that the costs and benefits of improvements in quality are spread out across stakeholders and across time. Simply put, when we make improvements in primary care (for example in diabetes management) the pay-off from those benefits typically happens in the hospital through lower admissions for the treatment of diabetes complications. While quality does save money, the separation between where the investment is made and where the savings occur makes it hard to capture those savings. The same is true for even the most disruptive innovations. When we substitute an innovation for older and more expensive ways of doing things we have to be able to reclaim the savings from eliminating those older ways. This means that any policy moves to promote integration of care across sectors will speed the arrow of innovation. Likewise, anything that builds barriers across sectors will likely hinder innovation.

The second issue is a more complex one around how we build learning health systems. The foundation of healthcare is knowledge, and our healthcare systems produce petabytes of data on a daily basis, but our systems are not yet set up to make use of that data for learning, innovation, and improvement activities. The Institute of Medicine (IOM 2007) along with many other leading organizations has made a compelling case for the importance of learning health systems – those that share data and insights across organizational boundaries – as a key to supporting innovation. This means that any policies that promote open data and transparency as well as improvement in the quality and timeliness of information in our system will spur and support innovation.

The third issue is a more profound one of culture and capacity. We are fortunate in healthcare to have one of the most highly trained and highly motivated workforces. Even in the face of financing crunches, healthcare professionals work hard to make care work for their patients. But we should not assume that highly intelligent, highly trained and highly committed individuals will start innovating on their own unless we take the lessons implicit across all of the papers and work them into the way we train health professionals.

Given the importance of innovation, it is not surprising that health systems around the world are moving towards integration, transparency and fundamental changes to the way they prepare their healthcare professionals. But without these fundamental changes to how we organize and prepare the people who work in healthcare, the adoption and diffusion of innovation will remain an uphill battle.

References

Barker, R. and T. Donnelly. 2017. "Transforming Healthcare Through Technology." *Healthcare Papers* 16(3): 27–34. doi:10.12927/hcpap.2017.25083.

Garcia, J.M. 2017. "Health System Innovation: Lessons from Tobacco Control." *Healthcare Papers* 16(3): 13–18. doi:10.12927/hcpap.2017.25085.

Institute of Medicine (IOM). 2007. *Roundtable on Evidence-Based Medicine: The Learning Health System*. Washington, DC: National Academies Press.

Naylor, C.D., N. Fraser, F. Girard, T. Jenkins, J. Mintz and C. Power. 2015. *Unleashing Innovation: Excellent Healthcare for Canada Report of the Advisory Panel on Healthcare Innovation*. Retrieved June 13, 2017. <http://healthycanadians.gc.ca/publications/health-system-systeme-sante/report-healthcare-innovation-rapport-soins/alt/report-healthcare-innovation-rapport-soins-eng.pdf>.

Ontario Health Innovation Council (OHIC). 2014. *The Catalyst Towards an Ontario Health Innovation Strategy*. Retrieved July 13, 2017. <http://health.gov.on.ca/en/pro/programs/ochis/docs/OCHIS_strategy_report.pdf>.

Ovretviet, J. 2009. Does Improving Quality Save Money? Retrieved June 13, 2017. <http://www.health.org.uk/publication/does-improving-quality-save-money>.

Padfield, S. 2017. "Shifting Paradigms in Canadian Healthcare to Support the Scale and Spread of the Innovation Ecosystem." *Healthcare Papers* 16(3): 19–26. doi:10.12927/hcpap.2017.25084.

Piron, C. 2017. "Key Conditions for Successful Serial Entrepreneurship in Healthcare." *Healthcare Papers* 16(3): 52–57. doi:10.12927/hcpap.2017.25079.

Snowdon, A.W. 2017. "A Blueprint for Innovation to Achieve Health System Transformation." *Healthcare Papers* 16(3): 8–11. doi:10.12927/hcpap.2017.25086.

Tomblin Murphy, G., S. Birch, A. MacKenzie, J. Rigby and M.E. Purkis. 2017. "The Drive towards Sustainable Health Systems Needs an Alignment: Where are the Innovations in Health Systems Planning?" *Healthcare Papers* 16(3): 40–46. doi:10.12927/hcpap.2017.25081.

Vaughan, P.W. 2017. "Quality and Innovation: Redesigning a Coordinated and Connected Health System." *Healthcare Papers* 16(3): 35–39. doi:10.12927/hcpap.2017.25082.

Williams, D., H. Hutton and G. Ryan. 2017. "Creating Value in Healthcare: The Need for Innovative Solutions." *Healthcare Papers* 16(3): 47–51. doi:10.12927/hcpap.2017.25080.