



Policy Capacity in the Learning Healthcare System

Comment on “Health Reform Requires Policy Capacity”

William Gardner*



Abstract

Pierre-Gerlier Forest and his colleagues make a strong argument for the need to expand policy capacity among healthcare actors. In this commentary, I develop an additional argument in support of Forest et al view. Forest et al rightly point to the need to have embedded policy experts to successfully translate healthcare reform policy into healthcare change. Translation of externally generated innovation policy into local solutions is only one source of healthcare system change. We also need to build learning healthcare systems that can discover new health solutions at the frontline of care. Enhanced policy capacity staffing in those organizations will be key to building continuously learning health systems.

Keywords: Policy Capacity, Learning Health System, Large Scale Healthcare Organizations, Knowledge Translation

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*Correspondence to:

William Gardner

Email: wgardner@cheo.on.ca

Forest et al¹ make a strong argument for expanding policy capacity among healthcare actors. By policy capacity, they mean the competencies that governments and public agencies use to “identify, formulate, implement, and evaluate solutions to public problems.” Healthcare actors who need policy expertise include “large private-sector organizations with commercial or financial interests in the health sector.” I will focus my discussion on large-scale hospital systems because that is where I have spent my career. Although I am mildly surprised by Forest et al¹ view that policy capacity is already widely available to such organizations, the authors are entirely correct that modern hospital systems need policy capacity. In this commentary, I develop an additional argument in support of their view.

Large-Scale Healthcare Organizations

The healthcare system is a complex ecology, with organizations at many scales, from the local clinic to the whole nation. Large-scale regional health organizations that own or coordinate many hospitals, clinics, and individual providers have been part of the post-war transformation of medicine. For example, the University of Pittsburgh Medical Center (UPMC) Pittsburgh, PA, USA is a complex of 21 hospitals and myriad clinics, with \$10 billion of annual revenue. Similarly, Tenet Healthcare operates more than 80 hospitals with 1 250 000 employees and over \$16 billion in revenue. These corporations are not in WalMart’s league (>\$400 billion), but they are orders of magnitude larger than the local hospitals from which they grew. Large-scale organizations also characterize social-democratic healthcare systems. For example, in the United Kingdom the National Health Service (NHS) is organized into a series of regional health trusts.

Policy Needs of Healthcare Organizations

So, why do large-scale health organizations need policy capacity? As Forest and colleagues see it, ideas for healthcare reform and innovation must be “translated or adapted... [and] combined with other factors if it is to result in something concrete and sustainable.” Why do these ideas need to be translated? Translation is required because implementing healthcare reform is anything but straightforward. The regulators or legislators who set reform goals are usually poorly informed about medical technology, the organizational structure of medical care, the dynamics of provider/patient relationships, or the indefinitely many other factors that must be accounted for in the implementation of change. The same is true for innovative treatments: what works in a laboratory has to be re-engineered to work in a clinic. As Forest et al note, much of the knowledge engaged in a discrete policy intervention turns out to be local, specific, singular... viable and beneficial transformations will come from those who understand the culture and the context, including the political realities.

Plans for reform and innovation cannot be read like recipes from journal articles.

With too few exceptions, [academic research] is still very much focused on the first stages of the policy process, such as agenda setting or option identification, or on the very last stages, such as outcomes measurement and evaluation. Direct practical experience of policy development and implementation is still unusual among academics, and few would know first-hand how compromises are negotiated, adjustments are made, and decisions are imposed (or not) on stakeholders before being communicated to the public.

This is true because healthcare is not just the quantifiable

aggregates of services and outcomes; it is also a micro process of interpersonal transactions. These transactions have a patterned quality within a given organization that one can call an organizational culture. Reform efforts must either comport with or change that culture. Culture change is possible but requires hard sustained effort, and it has to be led from within. I can illustrate this with my experience implementing a system for wireless-tablet-based screening of adolescents for behavioural health problems in a large system of primary care clinics.² The program was intended to be universal and the medical staff was enthusiastic about the results. But after some months, a comparison of our screening records with the clinic visit registries indicated that only one in four youths who visited the clinics was actually screened. What happened? Screening required the registration clerk to hand the tablet to a youth in a clinic waiting room. The registration staff were busy and quickly discovered that there were no consequences if they omitted this task. Medicine doctors (MDs) in the office must have noticed, but they were salaried employees working shifts in multiple clinics. The MDs did not view any specific clinic as being “my practice.” Therefore, the lack of cooperation from the clerical staff was not “my problem” to solve.

Because successful knowledge translation and implementation requires local knowledge there need to be people embedded in the organization who can convert evidence into projects, structures, or regulations. The best plans will fall short if no one is there to pilot the reforms when they meet resistance or bring about unexpected consequences. The most determined leaders will fail if no one can translate their vision into concrete measures.

In summary, healthcare organizations need people with the policy capacity to understand the innovation. These policy experts need to be embedded in the organization, so that they will have the local knowledge required to translate the innovation into an operational solution.

Finding Policy Solutions at the Frontline of Care

There is, however, a second reason why policy capacity is needed in large-scale health organizations. The translation of externally generated innovations into local solutions is only one source of healthcare system change. We also need to build learning healthcare systems³⁻⁵ that can discover new health solutions at the frontline of care. The key idea in a learning health system is that data on routine clinical and managerial activities should be captured and reported in ways that allow continuous improvement of care and learning from each and every patient. Enhanced policy capacity staffing in those organizations will be key to building continuously learning health systems.

We need learning healthcare systems because many of the critical problems of the healthcare system can only be studied within the system itself. For example, Pronovost et al⁶ developed a checklist for reducing catheter-associated infections in the intensive care unit (ICU) through studies carried out in actual ICUs. The Pronovost checklist has saved thousands of lives. Arora et al⁷ developed his approach for delivering specialized hepatitis C care in underserved settings through studies carried out in rural clinics.⁷

Health-system-based research will be increasingly important

as medicine moves toward treatments that are tailored to individual patients.⁸ Individualization of treatment requires that we gather reliable evidence about how the effects of treatments vary depending on patients’ health behaviour, social relationships, and genotypes. Modeling these relationships requires data from tens of thousands of patients, which is prohibitively expensive in conventional research designs. However, we can get this information through routine collection of social, biological, and outcome data during clinical care.⁹

We cannot do these studies in vitro. These questions can only be studied using the healthcare organization itself as a laboratory and using clinicians themselves as researchers. Tamblyn¹⁰ argues that we need to use the expertise of healthcare staff to discover effective healthcare reforms:

There has been a systematic failure to utilize the most important resource in the health system for system reform—the healthcare workforce... The most educated part of the workforce is the front line worker... They have the day-to-day experience with what works and what does not, ideas of what could be done differently, and the professional responsibility and commitment to improve the patient journey. We have not mined this resource, nor empowered them to be engaged in system change.

However, clinicians by themselves will have great difficulty transforming a healthcare organization into a learning health system. The typical physician, nurse, or other medical professional is not trained as a scientist. Clinicians have taken many science classes. But, classwork does not enable you to formulate a novel scientific question, let alone organize and carry out the empirical work to answer it. Critical skills that are not featured in medical education include statistics, data science, machine learning, outcomes measurement, ethnography, and quality measurement.

Forest and colleagues are right: we need experts with policy capacity embedded in healthcare organizations. But we need them not only to translate healthcare reforms into practice, but also to discover critical advances in how to deliver and personalize care.

Conclusion

Healthcare systems everywhere are faced with limits to the continued growth of funding. At the same time, there are continuing increases in demand for services. Hence, systems must find ways to improve the quality of care while restraining growth in its cost.¹¹ To solve these problems, healthcare systems need to engage in continuous learning, and this requires them to expand policy capacity.

In the traditional knowledge translation model,^{12,13} learning begins with discoveries in a basic science. These discoveries inspire treatments – new medications and devices – that are tested in clinical trials. This leads to practice-based research to advance the implementation of improved treatments in everyday clinical practice. Policy capacity is essential for this last step.

However, this linear progression of knowledge from basic science to the hospital bedside captures only part of the learning that is needed for comprehensive healthcare reform. There are solutions to healthcare problems that can be discovered only by healthcare providers using the system

itself as a laboratory. We need policy capacity in healthcare organizations not just to achieve better translation of basic science into practice. We also need policy capacity to transform our healthcare organizations so that they learn from each patient they treat.

Ethical issues

Not applicable.

Competing interests

Author declares that he has no competing interests.

Author's contribution

WG is the single author of the manuscript.

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