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Organizing the entrepreneurial hospital: Hybridizing the logics of healthcare and innovation

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ABSTRACT

Contemporary research hospitals occupy a vexed position in the policy landscape. On the one hand, as healthcare providers, they must abide by the logic of healthcare policy, which expects health research to support improved health outcomes and high quality healthcare systems. On the other hand, as research facilities, they are beholden to the logic of innovation policy, which seeks to advance research-driven, science and technology-derived innovations, where industry is the key customer and client. At the intersection of these policy logics, the research hospital must orchestrate a range of interests that may not always coexist harmoniously. Through a detailed case study of a Canadian research hospital, we illustrate organizational efforts to hybridize healthcare and innovation logics. The need to be more 'business like' and the expected financial and reputational rewards encourage acceptance of a mandate for technology transfer and commercialization. As well, there is hope that the entrepreneurial turn can serve the hospital's own mission, by prioritizing the needs of patients and the organization itself as a user of its own innovations. Further, insofar as successful technology transfer and commercialization is a transformative force, it is expected to enable the research hospital to achieve its goal of translational and impactful health research. As we illustrate, there is much optimism that these hybridizing efforts will produce a successful cross. Yet the trajectory of change in the context of mixed logics is necessarily uncertain, and other hybrid futures cannot be foreclosed. More sterile or monstrous outcomes remain possible, with potentially significant implications for the intellectual, economic and health benefits that will arise as a result.

> The health and healthcare sector should be viewed not as a cost to be endured, but as an opportunity to be explored, embracing a vision for Canada to create the most innovative, high quality healthcare system committed to continuous quality improvement . . . It should be the prime and prized example of innovation around the world. Implementing the vision of the health sector as an engine of economic growth will contribute greatly to a sustainable healthcare system (Mayer, 2002).
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> With the right policy and funding conditions, . . . [research hospitals] can bring more products and services to market and to patients. They revolutionize the way we address disease, disability, and quality of life issues; provide a mechanism for bending our healthcare cost curve; and generate wealth for decades to come (ACAHO-CHA, 2014).

1. Introduction

How do health care, health research, and contemporary innovation imperatives fit together? The elusive answer to this vexed question is perhaps nowhere more intensively debated than within the 'entrepreneurial hospital' (French and Miller, 2012). Yet, in spite of its centrality to the more generalized effort of mobilizing academic research for economic gain, attention to the entrepreneurial hospital, and the particular significance of efforts that implicate both *wealth* and *health*, has been surprisingly limited. As the above quotations illustrate, health innovation involves healthcare systems, and especially those organizations within healthcare systems that are most closely aligned with research and innovation policy,

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namely research hospitals. Yet innovation processes within healthcare organizations mobilize distinct goals and means, emanating from the imperatives of healthcare on the one hand, and research and innovation on the other.

In previous work, we argued that the entrepreneurial hospital is distinct from other entrepreneurial organizations, like the entrepreneurial university, because it can leverage its patient population – its 'living laboratory' – to support its entrepreneurial aspirations (French and Miller, 2012). Although this distinct capacity may empower the entrepreneurial hospital as a force of innovation – the hoped-for result expressed in the quotations that preface this article – it has complex implications for the conduct and outcomes of both research and care. To consider these implications, we first draw on policy documents to conceptualize the field level institutional logics that are the "socially constructed, historical patterns of material practices, assumptions, values, beliefs and rules" (Thornton and Ocasio, 2008) that "govern the understandings and behaviors of individual and collective actors within a particular institutional sector" (Zilber, 2013). Next, we review literature in innovation studies on the confluence of academic and entrepreneurial logics and the workings of largely "hidden" hospital-based research systems (Hicks and Katz, 1996), to consider how multiple institutional logics are instantiated within organizations (Besharov and Smith, 2014; Lounsbury, 2007; Sauermann and Stephan, 2013). Finally, drawing on a review of organizational documents from the mid-1990s through the present, and key informant interviews from 2008 to 2009, we show how a nascent entrepreneurial hospital in Canada mediates the multiple logics of healthcare and innovation, and negotiates the hybrid logic at their intersection. The desired consequence of these hybridizing efforts is the production of a successful cross, which mobilizes commercialization and technology transfer to serve and enhance the hospital's healthcare mandate. Yet the possibility that the hybrid may prove sterile or more monstrous cannot be foreclosed. We conclude with a reflection on this possibility, and on the broader implications of the entrepreneurial hospital.

2. Literature review

2.1. Hybridizing logics: At the intersection of healthcare and innovation policy

As Lehoux and colleagues (2008) have argued, two largely-disconnected public policy domains – healthcare policy and innovation policy – mobilize health innovation, and "emphasize goals that may diverge starkly, e.g., promoting commercial success versus fulfilling health care needs" (Lehoux et al., 2008). Their separate demands have become more insistent in recent years, driven by common concerns, such as constraints on public finances, and by sector specific concerns, such as the growing incidence of common and complex disease in aging populations and the underperformance of so-called knowledge economies.

For healthcare policy, the long-term sustainability of collectively financed healthcare systems is a pervasive international concern (Hacker, 2004). Technological innovation in these contexts invites concern about costs (Canadian Institutes for Health Information, 2012; United States Congressional Budget Office, 2008), skepticism about benefits, and criticism of continued emphasis on specialized, illness-centered technological interventions (Ham et al., 2011; Starfield, 2011). Health policy conversation in Canada mirrors international discourse, with attention to technological and demographic cost drivers (Canadian Institutes for Health Information, 2011), concerns about sustainability, and emphasis on new models of integrated, patient-centered care (Marchildon, 2013). As a corollary, innovation is typically understood to imply transformations in service delivery and system design, to improve coordination, quality and efficiency (Health Council of Canada, 2013; Woolf and Johnson, 2005). However, Canadian health policy documents reflect growing awareness of national policy interest in technological innovation and the economic opportunities arising therein (Table 1). Indeed, while the bulk of a recent national report on "healthcare innovation" focused on innovation in the organization, regulation and financing of care, one chapter was devoted to the potential to achieve "economic prosperity" through "the development, commercialization, adoption and export of innovative healthcare products and services."(Health Canada, 2015).

Within research and innovation policy, by contrast, interest in innovative health technologies as drivers of economic benefits is a dominant and consistent logic. National research systems have been steadily reformed in recent decades, to increase technology transfer and the commercialization of academic research (Mowery and Sampat, 2005), and to leverage public sector demand as a support for innovation (Industry Canada, 2014; OECD, 2014). Further, the potential yield of the life sciences in the translation of academic discoveries into economic benefits is a frequent focus of policy efforts (McMillan et al., 2000). Innovation has been a dominant national policy topic since the mid-1990s in Canada (Halliwell and Smith, 2011). The higher educational sector has largely endorsed the emphasis on academic entrepreneurship (Metcalfe, 2010), though concern at the perceived gap between academic productivity and its subsequent translation into patents and licenses, successful business ventures and economic gain persists (Conference Board of Canada, 2013; Industry Canada, 2011; Science Technology and Innovation Council, 2015). Health and healthcare are featured in national innovation policy documents as benefiting from economic prosperity, as areas where technological innovations will yield benefits, and as fields in which Canadian researchers have a strategic advantage. Research hospitals are only sometimes explicitly noted alongside universities and other organizations as part of the infrastructure that drives innovation, and their status as components of a system devoted principally to the delivery of healthcare goes unacknowledged.

While Canadian healthcare policy documents largely de-emphasize the economic promise of scientific and technological innovation, and innovation policy documents give little attention to the distinctive role of healthcare organizations within knowledge economies, a growing discourse is developing at the intersection of these logics, with particular attention to the role of research hospitals. These discussions frame what we can heuristically describe as a third, or hybrid logic, which emphasizes the mutuality of interest between firm-focused innovation systems on the one hand, and the quality and sustainability of healthcare on the other. It is argued in the UK, for example, that research hospitals can lead "the transformation of medicine through the development of a discovery-care continuum" because of their roles in both discovery science and the delivery of clinical care (Dzau et al., 2010; see also Dzau et al., 2013). In Canada, commentators have also called attention to research hospitals as, "the driving force of health research," because they undertake "not just clinical studies, but also the full spectrum of research from fundamental discovery to development to application and evaluation" (Wright et al., 2011).

Seeking to leverage concurrent but largely disconnected national discussions about the future of Canada's healthcare system on the one hand, and the organization of Canada's research and innovation system on the other, leaders within Canada's health research system, prominently including the national association representing research and other hospitals, HealthCareCAN (previously ACAHO), have intervened actively in public policy discussion since the early 2000s, seeking to "Bridg[e] the gap between health care and innovation ... to sustain Canada's health care system" (Brimacombe, 2005; see also Canada's Public Policy Forum, 2005;