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Antecedents and Consequences of Hospitals' Responses to Institutions: Three Contemporary Essays Concerning Ontario Reforms

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A thesis submitted in partial fulfillment of the requirements for the Doctor of Philosophy degree in Business

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Abstract

This dissertation contributes new insights on the antecedents and consequences of hospitals' responses to institutions. It consists in three essays that collectively explore why and how hospitals balance their technical requirement of providing high-quality and affordable healthcare with an evolving constellation of institutional demands. The collective findings provide a contemporary perspective on the reconditioning of decoupling as a multi-form process, and a nuanced conception of factors affecting the institutionalization and deinstitutionalization of practices within hospitals.

Extending research on institutional leadership, Essay 1 examines hospitals' approaches to an external mandate for energy conservation and climate mitigation. Through a qualitative investigation, it demonstrates how hospitals infused energy conservation values into the core structures and processes of their organization. It presents a distributed process model of institutional leadership wherein members of the organizational base create and maintain value systems in support of energy conservation, while disrupting pre-existing patient care routines that undermine value-infusion.

Essay 2 leverages recent advances in configurational methods to investigate how hospitals responded to a dual-pronged reform seeking to simultaneously reduce healthcare costs and improve the quality of clinical services. It finds that hospitals differed in their political, cultural and technical responses to this institutional change, and that four meta-configurations of responses accounted for a significant proportion of change in clinical outcomes in hospitals. A typology is developed to explain how each configuration likely affected clinicians' use of best clinical practices and pathways.

Essay 3 integrates social identity-based leadership theory with resource dependence theory to develop and test predictions about hospitals' responsiveness to women's health issues. Using latent growth curve modelling, it analyzes baseline reporting levels and change in medical failures affecting women patients during childbirth in each hospital, and the effects of various covariates on these growth parameters. Findings show that female CEO-led

hospitals have greater levels of commitment to women's health issues, but that the effect of gender is attenuated by female CEO's perception of resource dependence.

Keywords

Decoupling, Deinstitutionalization, Institutionalization, Healthcare Management, Hospitals, Institutional Leadership, Reforms, Social Identity, Gender, Value-Infusion, Values

Summary for Lay Audience

Hospitals strive to provide affordable and high-quality healthcare. Yet, they must also satisfy the broader expectations of stakeholders, such as the state and clinical professions, in order to maintain their legitimacy and increase their access to resources. In this dissertation, I examine why and how hospitals respond to these stakeholder expectations.

Essay 1 studies Ontario hospitals' responses to the Green Energy Act (2009) and pays special attention to how energy managers and their allies influenced the evaluation, adoption and implementation of energy conservation projects. I find that energy managers and their allies played an important role in the process of defining their hospital's energy conservation vision and establishing dedicated roles and committees responsible for executing this vision in a decentralized manner. Energy conservation leadership depended on the work of individuals distributed at lower levels of the organization, and their ability to build support from senior executives, board members and frontline workers.

Essay 2 studies Ontario hospitals' responses to the Excellent Care for All Act (2010) and the Health System Funding Reform (2012), which culminated in simultaneous pressures for cost containment and quality improvement for patients with chronic diseases. I examine how hospitals' varying commitments to cost containment and quality improvement affected clinical outcomes, and identify four types of commitment combinations that account for a significant proportion of changes in patient readmissions. I elaborate how the four types of commitment combinations influence clinicians' utilization of clinical best-practices and pathways.

Essay 3 studies Ontario hospitals' responses to the Canadian populace's concern about adverse events occurring to women patients in labour and delivery. It centres on whether Ontario hospitals led by female CEOs, as opposed to male CEOs, responded differently to these concerns. My findings suggest that female CEO-led hospitals were more likely to encourage clinicians to share information on medical failures during childbirth and to reduce the occurrence of these medical failures over time. However, when female CEOs perceived their hospital to be highly dependent on external stakeholders for their access to resources, their hospital tended to be less committed to these issues.

Co-Authorship Statement

Essay 1 is co-authored with John Maiorano and Lee Watkiss. John Maiorano undertook data collection and analyses during all three stages of the naturalistic inquiry while he was a researcher and doctoral student at the University of Toronto. Lee Watkiss and I collaborated in writing the current paper, which involved re-analyzing data for the purpose of case analysis and reporting of findings. While I led all stages in this process, the paper benefitted from Lee's continuous and fluid feedback. I undertook all aspects of data analysis and developed a first draft of the paper, while Lee played a particularly important role in editing the paper, refining the narrative structure for our findings, and fleshing out the discussion and conclusion. Essay 3 is co-authored with W. Glenn Rowe who contributed by editing and providing methodological and writing advice during various iterations of the paper.

Acknowledgments

First and foremost, I wish to thank W. Glenn Rowe and, by extension, his late wife Fay Rowe. Glenn has been my most fervent cheerleader and mentor at various critically important moments throughout my doctoral journey. As my supervisor, he always knew just what to say to keep me on track in my dissertation research and development as an academic. I treasure the time we have spent together, from the many hours sitting in his classes to observe his lectures, the countless conversations in his office which was always open, and the occasions we have met outside of university. I really could not have asked for a better person to serve as my supervisor. And, to Fay, whose light will continue to illuminate our paths through her writing, prayer and advice: thank you.

To my other committee members, Mark Zbaracki and David Barrett: I really could not have produced this very dissertation without you. Mark was a constant source of encouragement and sage counsel as I navigated the practical intricacies of data collection in the field and interpretation of phenomena. I greatly benefitted from his generous and thoughtful guidance along the way, usually stretching myself far beyond my comfort zone into new literatures or more grandiose research ambitions. David opened his rolodex and facilitated many of the introductions to gatekeepers at the various hospital sites in my research. He could always be counted on for advice when I confronted obstacles in the research access and approval process.

I also thank my co-authors: Lee Watkiss, John Maiorano and W. Glenn Rowe. In particular, Lee was instrumental in getting our paper to a submittable stage and has continued to be extremely generous with his time and scholarly support. His spirited nature and coaching throughout the writing process have been essential. I acknowledge John for sharing with us his data, which made our paper possible. I am grateful to Glenn for turning me onto linear growth modelling as an analytical method for our paper and providing helpful writing advice. I am also appreciative of L. Miin Alikhan and Guillermo A. Sandoval for sharing the Strategic Priorities Questionnaire data, and Karin Schnarr for collecting the Hospital Report Series: Acute Care data.

I acknowledge that I have benefitted from the feedback of anonymous reviewers, conference participants and discussants on various iterations of my essays. I am especially grateful to Royston Greenwood, Michael Smets, Peer Fiss, Santi Furnari, Rodney Lacey, Emily Block, Claudia Gabbioneta, Sarah Kaplan, Stephen Shortell and Martin Charns whose feedback have enriched the quality of my work. I also benefited from the generosity of numerous individuals in the healthcare community such as my interviewees and supporters at the various hospital sites. Thank you for voluntarily taking time out of your busy schedules to elucidate some of the more personal aspects of your experiences at work.

My expression of gratitude goes out to the greater Ivey and Western community, including numerous professors who have shared their advice, research and expertise. Thank you also to the many Ivey doctoral students who have tremendously enhanced my enjoyment and learning in the PhD program, especially Nuruddin Ahmed, Sampath Bemgal, Mayur P. Joshi and Sergii Nevmerzhytskyi. I am indebted to Carly Vanderheyden, Lauren Cipriano and Paola Ramgren at the PhD program office for their unfailing support through the years, particularly during the more disruptive period of late.

Last but not least, I am grateful to my family, the church and my wife, Salima. My mother and grandfather provided comic relief and good cheer during both celebratory and more challenging moments of my doctoral studies. I have also been strengthened by our church family in London and my relationship with God, who has been a tangible yet immeasurable source of comfort, hope, grace, blessing and wisdom (Psalm 121:1-2). Finally, to my incredibly generous and supportive wife, Salima: your unwavering commitment, faith in my abilities and love of God provided the foundation for my doctoral journey. I will forever be grateful for the sacrifices she has made; this dream would not have been realized without her and I cannot thank her enough for the myriad ways in which she supported this dissertation.

For our son, Sinclair.

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Chapter 1

1 Antecedents and consequences of hospitals' responses to institutions

1.1 Introduction

In this introductory chapter, I highlight major developments in institutional theory and introduce how the essays contained in this dissertation are positioned with respect to these various developments. I provide a broad summary of the literature on the antecedents and consequences of organizational responses to institutions by reviewing the foundational works of institutional scholars. I also describe the importance of the hospital sector as a context for this research.

This chapter traces the genealogy of institutional scholarship on organizational responses to institutions to contextualize the empirical chapters among this broader, germinal body of work. It aims to familiarize uninitiated readers to the evolution of institutional scholarship over the last four decades. More seasoned readers will note that contemporary institutional literature from business school organizational scholars has evolved into more specialized disciplinary streams (Scott, 2017), some of which are introduced in this chapter but not covered in detail. This introductory chapter favours breadth over depth.

All three essays address contemporary organizational and management scholarship on why and how organizations respond to conflicting demands from their institutional environment, and how these responses affect organizational practices. Yet, the essays are anchored within their own distinct scholarly conversations, which are extensively reviewed within each of their respective chapters. In the introductory chapter, I avoid replicating the more granular theoretical and conceptual background to these essays so as to avoid unnecessary repetition. I focus instead on providing a framework for understanding the foundational works upon which those empirical chapters are based.

This introductory chapter's relationship to the subsequent empirical and concluding chapters can be described through the image of a deciduous tree.[1] The introductory chapter represents an expansive root system. It weaves together the contributions of early institutional theorists and their closest contemporaries who have helped fuel the development of a rich literature on the role that institutions play in the world of organizations. The disciplinary scope and its constituent research agenda – concerned with understanding the heterogeneity in organizational responses to conflicting institutional demands and consequent changes in organizational practices – represents the trunk. It is a conduit that focuses the exchange of ideas or nutrients from the roots to the rest of the tree. In a departure from much of the earlier institutional scholarship, the essays seek to bring "the organization as a whole" to the centre-stage (Greenwood, Hinings, & Whetten, 2014) and elucidate how actors within organizations are influenced by and shape institutions (Hallet & Ventresca, 2006). Yet, all the three essays (empirical chapters) represent their separate branches, each being concerned with their own research questions and respective literatures. The concluding chapter, which discusses the collective contributions of the essays with reference to the broader body of work in institutional theory, represents foliage since its role is to develop ideas or nutrients to be exchanged with the root system.

1.1.1 Introduction to early developments in institutional theory

Initially drawing from the early work of political scientists (Burgess, 1890), economists (Commons, 1924) and sociologists (Cooley, 1909; Weber, [1924] 1978), institutional theorists have sought to advance knowledge on how organizations are constrained and constituted by the rules, norms and cultural forces from the wider environments in which they are embedded. This scholarship accelerated in the last 40 years.

---

[1] The language of genetics and plant physiology pays homage to my wife, a molecular plant biologist. We met while she was working on her Master's thesis at the Central Experimental Farm (Department of Agriculture and Agri-Food), in the city of Ottawa, Canada. She transitioned to industry and moved to a different city to support my own doctoral journey. I consider this dissertation to be a product of her dedication as much as mine.

In the late 1970s and early 1980s, Stanford University sociologists John W. Meyer and W. Richard Scott undertook studies in the educational sector (Meyer, 1977; Meyer & Rowan, 1977; Meyer, Scott, Cole, & Intili, 1978; Meyer, Scott, & Deal, 1981) which demonstrated how normative guidelines on appropriate organizational behaviour are promulgated by external stakeholders, and that organizations' adoption of these guidelines is motivated by a desire to garner legitimacy. These studies moreover showed how these guidelines derive power not from their impact on task activities of organizational actors, but from their perceived association to rationality (Meyer & Scott, 1983). This development contrasted with the dominant paradigm of the time – contingency theory – by adding that organizational structure is not purely dependent upon the technical impositions of organizations' task environments. This claim echoed predecessors such as Hughes (1939) and Selznick (1957) who foretold how organizations ascribe value to some elements independently of their technical utility. Taken as a whole, this seminal work ascertained how social norms and rules (Berger & Luckmann, [1966] 1967; Durkheim, [1912] 1961; Weber, [1924] 1978) are important environmental forces that constrain and constitute organizational structure.

Throughout the1980s, Yale University sociologists Paul J. DiMaggio and Walter W. Powell elaborated the conditions under which organizations tend to become homogenous in their structures and behaviours. They introduced the notion of an organizational field as a group of "organizations that, in the aggregate, constitute a recognized area of institutional life: key suppliers, resource and product consumers, regulatory agencies, and other organizations that produce similar services or products" (DiMaggio & Powell, 1983, p. 148). More importantly, they elaborated the processes through which "rational actors make their organizations increasingly similar" as a result of repeated interactions with their organizational field (1983, p. 147). Drawing on social network theory (Laumann, Galaskiewicz, & Marsden, 1978; White, Boorman, & Breiger, 1976) and resource dependence theory (Pfeffer & Salancik, 1978), they described how the state and professions exert coercive and normative pressures that make organizations become more similar in their structural elements (DiMaggio & Powell, 1983; DiMaggio, 1986). They further demonstrated that, through repeated interactions, organizations within fields exert mimetic pressures upon each other. These developments extended the

earlier work of Scott and Meyer (1983) by showing how networks of interdependencies among organizations and their environments amplify the influence of regulative, normative and cultural-cognitive forces upon an organization. In this vein, empirical research proceeded vigorously (Fligstein, 1985; Tolbert & Zucker, 1983).

The research efforts of management and organizational scholars seeking to understand how such institutional processes affect organizations came to be subsumed under the label of 'institutional theory' and by the end of the 1980s, the intellectual project was recognized as entering its adolescence (Scott, 1987). By this time, scholarship on institutional theory was vibrant and major branches of empirical and conceptual work were discerned (Scott, 2005) in areas that included: the diffusion of institutional elements among organizations (Hinings & Greenwood, 1988; Dobbin, Edelman, Meyer, Scott, & Swidler, 1988); the organizational disruptions caused by conflicting institutional prescriptions (Abzug & Mezias, 1993; D'Aunno, Sutton, & Price, 1991; Meyer, Scott, & Strang, 1987), and; social processes underlying the construction of rules and logics that constitute and constrain organizations and organizational fields (DiMaggio, 1991; Haveman & Rao, 1997).

1.1.2 Introduction to the challenges of early developments in institutional theory

Yet, while much progress was made during the early decades of institutional theory, major flaws in some of the foundational works became obvious by the late 1990s and are still being worked out today (Scott, 2008; Tolbert & Zucker, 1996). As it turns out, the early theoretical works spearheaded by both the Stanford and Yale sociologists impregnated the lenses through which researchers view social phenomena and thus exerted a path-dependent effect on subsequent scholarship, which required redirecting. As Scott (2005, p. 466) stated in retrospect, "reconsideration and corrections were called for". Among these challenges were two areas of scholarship which are still ongoing today and are particularly salient to the research endeavours presented in this dissertation.

The first of the challenges was to move scholars away from the top-down model of institutional analysis as it presented an overly deterministic framework for

understanding the influence of institutional processes upon organizations (DiMaggio, 1988; Scott, 2008). While seminal work in institutional theory demonstrated that fragmented institutional environments provide organizations with conflicting prescriptions for action (Meyer & Rowan, 1977), subsequent scholarship showed that such environments also provide pluralistic logics that support divergent organizational structures and modes of behaviour (Friedland & Alford, 1991; Seo & Creed, 2002). Additionally, the early works' portrayal of institutional pressures as being isomorphic in nature was brought into question; legal scholars showed that even regulative forces exerted upon a given organizational field can lead to a range of legitimate organizational responses (Dobbin & Sutton, 1998; Edelman & Suchman, 1997). Therefore, scholars increasingly recognized that, rather than conforming with institutional processes (DiMaggio & Powell, 1983), organizations may behave strategically in the face of institutional pressures. As Oliver (1991) demonstrated, organizations may choose from a range of organizational responses that "vary in active organizational resistance from passive conformity to proactive manipulation" (p. 145).

These developments contextualized the isomorphic effects earlier introduced by DiMaggio and Powell (1983). As a result, there was a growing recognition that field characteristics both constrain and enable the agency of organizations and their actors (Dorado, 2005; Sewell, 1992). Moreover, ongoing work has shown that organizations' responses may depend upon the preferences or predispositions of their top managers (Finkelstein & Hambrick, 1996) who tend to vary in their attention to and interpretation of processes in their environment (March, 1994). Studies have shown that organizational responses to institutional processes are affected by such attributes as top manager's beliefs (Liang, Saraf, Hu, & Xue, 2007), preferences (Baron, Hannan, & Burton, 1999), interests (Zajac & Westphal, 1994) and values (Kraatz, Ventresca, & Deng, 2010). Additional work also showed that personnel at lower levels of an organization can exert institutional influence from within through their interaction with each other and top managers (Denis, Langley, & Sergi, 2012; Dobbin & Sutton, 1998). Hence, a more appropriate focus of subsequent, ongoing scholarship has been to study the heterogeneity in organizational responses to institutional processes to find the *antecedents* that dispose

organizations to respond in various ways. More contemporary scholarship and this dissertation's contribution to this area of study will be highlighted later in this chapter.

The second of the challenges was to recondition decoupling as a multiform organizational response to institutional processes (Scott, 2005). Meyer and Rowan's (1977) seminal work had introduced the notion that organizations, compelled to garner legitimacy, adopt institutional guidelines but avoid incorporating them into their technical activities. In other words, organizations conform in a merely ceremonial fashion to institutional processes by decoupling their formal responses from their technical processes (Meyer, Scott, & Deal, 1981). Scholars criticized this initial definition and conditioning of decoupling for being out of line with the reality facing organizations (Hall, 1992; Perrow, 1985). Later empirical work showed that the responses of organizations within a given field tend to exist on a continuum that ranges between highly coupled and highly decoupled (Westphal & Zajac, 1994), which brought into question the initial belief that ceremonial conformance is a dominant response. Further, additional studies demonstrated that decoupling need not be exclusively defined by an organization's intent to deceive its stakeholders and external audiences (Bromley & Powell, 2012).

These developments problematized and contextualized decoupling as earlier introduced by Meyer and Rowan (1977). A consequent body of work showed that organizations experience decoupling also because of such conditions as the sensemaking of actors within technical work processes (Coburn, 2004), the ability of subgroups to create cogent alternatives to institutional guidelines (Greenwood & Hinings, 1996), inertia or political interests within technical work processes (Dobbin F., 1994), the professional identity of subgroups affected by institutional guidelines (Kellogg, 2012), and internal conflicts that arise when organizations attempt to implement competing institutional demands (Besharov & Smith, 2014; Pache & Santos, 2010). Additional research showed that even coupling can occur unintentionally as subgroups within the organization internalize their organization's formal response even when structural changes were originally meant to remain superficial (Edelman L. , 1992; Hoffman, 1997; Sauder & Espeland, 2009). These developments demonstrated that decoupling and

coupling can take place under various conditions as an unwitting consequence of organizational responses to institutional processes. Hence, a more appropriate focus for scholars has been to study the *consequences* of various organizational responses to institutional processes to better understand the mechanisms underlying the various forms and outcomes of these responses. More contemporary scholarship and this dissertation's contribution to this area of study will be highlighted later in this chapter.

1.1.3 Introduction to the essays contained in this dissertation

This dissertation advances management scholarship on the antecedents and consequences of organizations' responses to institutional pressures. It does so by focusing on how hospitals in Ontario, Canada responded to: 1) institutional pressures for energy conservation and climate mitigation; 2) conflicting institutional pressures for cost reduction and clinical quality improvement for chronic disease management, and; 3) institutional pressures to improve the clinical outcomes for women in childbirth. Limiting the study of organizational responses to a single sector and jurisdiction – hospitals in Ontario, Canada – allowed the research to isolate institutional processes common among a relatively homogenous group of organizations, thus facilitating the generation of theoretical insights on the *antecedents* and *consequences* of organizational responses.

Essay 1 examines the antecedents and consequences of Ontario hospitals' responses to an external mandate from the Environment Ministry of Ontario, which sought to encourage energy conservation and climate mitigation in public sector organizations. Through the use of an inductive, qualitative approach that included participant observation, interviews, and archival sources, I identify two organizational archetypes that informed how hospitals responded to these pressures, and infused energy conservation values into their organizational structures and processes. I develop a model of distributed institutional leadership that extends existing institutional leadership theory (Besharov & Khurana, 2015; Kraatz, Flores, & Chandler, 2020; Kraatz, Ventresca, & Deng, 2010; Rojas, 2010; Selznick, 1957; Washington, Boal, & Davis, 2008) by showing how the infusion of values in pluralistic organizations such as hospitals depends on institutional work (Lawrence & Suddaby, 2006) from leaders distributed across functional groups (Soderstrom & Weber, 2020; Tsoukas & Chia, 2002). In other words,

the leadership of actors distributed throughout the organization is an important *antecedent* to a hospitals' structural response. It is also through this distributed leadership that a hospital's formal commitment toward energy conservation becomes *coupled* with the technical work of actors within the organization, and thus becomes integrated with the hospital's primary imperative of providing high-quality and affordable patient care.

Essay 2 examines the consequences of Ontario hospitals' responses to a dual-pronged reform from the Health Ministry of Ontario, which sought to encourage hospitals to simultaneously reduce costs and improve the quality of care they give to patients with chronic diseases. I analyze archival data with fuzzy-set configurational methods (Fiss, 2011; Ragin, 2000) to identify hospitals' responses to these pressures. Drawing from previous work on the diffusion of institutional guidelines in organizational fields (Ansari, Fiss, & Zajac, 2010), I develop a typology that describes how hospitals' political, technical and cultural responses interact in configurations to affect changes in the quality of clinical services and outcomes for these patients. The substantial implementation of best clinical practices and pathways occurred when the politics, technical procedures and culture of a hospital were appropriately aligned. When there was a misalignment at the level of political, technical or cultural aspects, either of three types of adverse implementation dynamics occurred: superficial (Goodrick & Salancik, 1996; Lozeau, Langley, & Denis, 2002), subversive (Kellogg, 2009; Kern, Laguecir, & Leca, 2018) or symbolic (Bromley, Hwang, & Powell, 2012; Bromley & Powell, 2012) implementation of best clinical practices and pathways. Ultimately, this work provides a lens through which to understand the unwitting *decoupling* that can occur as a *consequence* of an organization's responses to conflicting institutional pressures.

Essay 3 examines the antecedents of Ontario hospitals' responses to emerging societal expectations about the need to improve health outcomes for women. I integrate social identity and resource dependence theories to explain how: hospitals led by women may respond differently to gender salient demands, compared to those led by men, and; resource dependence may affect the relationship between leader gender identity and organizational responsiveness to these demands. Drawing on arguments from social identity-based leadership theory (Hogg, 2001), I derive hypotheses about the main effects

of hospital CEO gender on hospitals' baseline reporting levels and change in medical failures affecting women in childbirth. Drawing on resource dependence theory (Pfeffer & Salancik, 1978), I derive hypotheses about the moderating effects that the perception of resource dependence among female CEOs is likely to have on the relationship between hospital CEO gender and hospitals' baseline reporting levels and change in medical failures affecting women in childbirth. The methodological approaches uses latent growth curve modelling (Bollen & Curran, 2006) to analyze whether and how the gender of hospital CEOs influenced the growth trajectory of the rate of medical failures during childbirth. Results from latent conditional growth modelling analyses suggest that hospitals' responsiveness to women's health outcomes vary according to the predictions of social identity-based leadership theory and resource dependence theory. Hospitals led by female CEOs have significantly greater baseline reporting levels of childbirth-related medical failures and reduction in these medical failures over time, but these effects are attenuated by female hospital CEOs' perceptions of their organization's resource dependence. This work provides evidence as to the importance of leaders' *gender identities* as an *antecedent* to their organization's responsiveness to field-level, gender-centered pressures.

In the following section, I synthesize the scholarly conversation on organizational responses to institutions, including as pertaining to the antecedents of organizational responses, the consequences of organizational responses, and the particularities of the hospital sector as a research context. Next, I discuss how scholarship on organizations' structural, political, cultural, technical and gender-centered responses has developed, and explain how the three essays contained in this dissertation advance research in each of these areas. I then provide a summary of the major contributions of each essay.

1.2 Research on organizational responses to institutions

Institutional theorists have traditionally emphasized the collective structuration of entire organizational fields (DiMaggio & Powell, 1983), leaving little room for strategic actions by organizations. Whereas the research of some institutional theorists continued to abide by these assumptions – especially at a more macro level (Drori, Meyer, & Hwang, 2006;

Meyer, Boli, Thomas, & Ramirez, 1997) – organizational and management scholars have demonstrated that organizations can behave strategically when confronting institutional pressures (Oliver, 1991; Suchman, 1995b; Vermeulen, Zietsma, Greenwood, & Langley, 2016). Both streams of institutional analysis agree that organizations require legitimacy in order to ensure their persistence and performance. However, a mounting body of work within organizational and management literature recognizes (Deephouse, Bundy, Tost, & Suchman, 2017) that legitimacy is not simply a reflection of an organization's conformance with relevant regulative, normative and cultural-cognitive pressures, but a product of an organization's strategic choice (Suchman, 1995b).

Strategic choice is especially important when organizations are embedded in fragmented environments where institutional prescriptions and requirements are often conflicting (Greenwood, Raynard, Kodeith, & Micelotta, 2011; Vermeulen, Zietsma, Greenwood, & Langley, 2016). As proposed in early seminal work, "[t]he legitimacy of a given organization is negatively affected by the number of different authorities sovereign over it and by the diversity or inconsistency of their accounts of how it is to function" (Meyer & Scott, 1983, p. 202). Yet, because conflicting prescriptions also offer logics that support organizations' pursuit of various divergent strategies (Friedland & Alford, 1991; Ocasio & Radoynovska, 2016), organizational responses in such contexts need not be restricted to ceremonial conformance (Meyer & Rowan, 1977). Instead, there may be a variety of viable strategies available to them (Ocasio & Radoynovska, 2016).

For example, Kraatz and Block (2008) provided a typology of possible strategic responses that enable an organization to gain, maintain and repair their legitimacy (Suchman, 1995b) through their agentic response to conflicting institutional prescriptions and requirements. According to their typology, organizations facing conflicting institutional demands can choose to either: 1) neutralize some demands by denying their validity or escaping their jurisdiction so as to avoid (Oliver, 1991) their influence altogether; 2) attend to multiple demands sequentially by creating dedicated, loosely coupled (Weick, 1976) units and initiatives that demonstrate simultaneous commitments to them; 3) balance multiple demands by playing internal subgroups against each other or finding cooperative solutions that overcome possible cultural and political tensions

between subgroups, and; 4) integrate multiple demands to forge a durable identity around distinctive value commitments (Selznick, 1957) that allow the organization to become "not only a cultural product, but also a producer of culture" (Kraatz & Block, 2008, p. 251), thus gaining an ability to legitimate its own actions. This broad range of responses corresponds with Oliver's (1991) argument that organizations may employ a variety of strategies to respond to field-level constraints. Consistent with the tenets of both institutional and resource dependence perspectives (Pfeffer & Salancik, 1978), Oliver (1991) showed that organizations may choose to acquiesce (conform with), compromise, avoid, defy or manipulate institutional pressures depending upon which alternative organizational actors perceive as being most consistent with their self-interest.

Indeed, the scholarly conversation in institutional theory now acknowledges that "[d]emands or requirements [from institutional environments] trigger not automatic conformity, but multiple questions" (Scott, 2014, p. 208) that organizations ought to consider in determining their best course of action. Thus, a significant body of research undertaken by organizational and management scholars has been directed not only toward codifying the various possible organizational responses to institutional pressures (Kraatz & Block, 2008; Oliver, 1991; Suchman, 1995b), but mostly toward understanding the *antecedents* and *consequences* of those choices and behaviours. I synthesize the literature within these two areas of organizational and management scholarship, below. The literature review is not intended to be exhaustive, but rather to be illustrative of relevant conceptual and empirical developments.

1.2.1 Antecedents of organizational responses to institutions

Antecedents of organizational responses to institutional pressures exist at both organizational and field levels. Since this dissertation emphasizes the organizational antecedents, I focus the review on the former and highlight field antecedents more succinctly. At an organizational level, scholars have identified various antecedents that, for the purpose of this review, I have classified among three classes of variables.

1.2.1.1 Characteristics of top managers

The first class of organizational antecedents pertains to characteristics of an organization's top management team. Top management teams consist of an organization's senior executives whom are primarily responsible for making strategic choices for their organization (Finkelstein & Hambrick, 1996). These strategic choices include responding to issues as they arise in both their task and institutional environments. However, because organizations and their top management teams are limited in their ability to attend to and interpret their environment (March, 1994), their strategic response relies upon decision-making processes that are imperfect by nature and under considerable influence by the capabilities and preferences of top managers (Daft & Weick, 1984; Hambrick & Mason, 1984). For instance, early empirical work studied factors that influenced the adoption of the multidimensional form among the 100 largest non-financial corporations in the United States between 1919 and 1979 (Fligstein, 1985). It found that organizations headed by a CEO with a business background in either production, marketing or finance were more likely to adopt multidivisional structures (Fligstein, 1985; Fligstein, 1990). Further study into the strategies of these corporations found that organizations' pursuit of diversification strategies was influenced by the background of CEOs (Fligstein, 1991). Organizations with a newly-hired CEO from a manufacturing background tended to subsequently adopt a strategy focused on a single product market, whereas those with a newly-hired CEO from a marketing or finance background tended to adopt a strategy of diversification across several related or unrelated markets. To put it succinctly, the background of a CEO influences search (March, 1994) and sensemaking processes (Weick K. E., 1995) at the strategic level of decision making, thus affecting an organization's strategic choice. This effect is encapsulated by Fligstein's (1991) following observation:

> *"a manufacturing person will tend to see the organization's problems in production terms, a sales and marketing person will tend to view the nature, size and extent of the market as critical to organizational survival, and a financial person will see the basic profitability of firm activities as crucial* (p. 323)*."*

The influence of various attributes of CEOs and other senior executives on an organization's strategic response to institutional processes has been found in many other contexts. In a study of the adoption of enterprise resource planning (ERP) systems in Chinese manufacturing and service organizations, Liang, Saraf, Hu and Xue (2007) found that organizations whose senior executives believed that ERP systems are beneficial were more likely to adopt ERP systems. In a study of over 500 of the largest industrial and service corporations in the United States over several years, Westphal and Zajac (1994) found that organizations headed by CEOs with relatively higher amounts of influence over their board of directors were less likely to implement (Meyer & Rowan, 1977) long-term incentive plans. Additionally, organizations headed by a CEO with a high equity stake in their firm and who therefore had a higher risk exposure to their firm's performance were less likely to adopt and implement long-term incentive plans (Zajac & Westphal, 1994). In a study of young technology start-ups in Silicon Valley, Baron, Murton, and Hannan (1999) found that a founding CEO's preferred employment model persisted through the first several years of operation; start-ups whose CEO held a bureaucratic conception of employment had persistently higher managerial intensity than start-ups whose CEO had a more egalitarian conception of employment. In a study of the diffusion of 'enrolment management' among universities in the United States, Kraatz, Ventresca and Deng (2010) found that universities headed by a president with a relatively short tenure or experience with enrolment management from their tenure at a previous university were more likely to adopt an enrolment management structure. In a study of financial reporting practices in the 200 largest nonfinancial corporations in the United States between 1962 and 1984, Mezias (1990) found that corporations with high turnover among their senior executives were more likely to adopt a prevailing financial reporting standard.

Taken together, these studies illustrate that such attributes as the experience, beliefs, power, interests, values and turnover of CEOs and other senior executives influence an organization's strategic decision-making in response to institutional pressures. Later I will describe how Chapter 4 of this dissertation (Essay 3) adds to this literature by elaborating how a CEO's identity or, more specifically, gender also influences an organization's strategic response.

1.2.1.2 Characteristics of personnel in the organizational base

The second class of organizational antecedents pertains to various characteristics of personnel in an organization's base (below top management). Members in the organizational base interpret institutional issues as they arise and interact with each other and top management in constructing their organizations' response (Denis, Langley, & Sergi, 2012). This interactional perspective recognizes that antecedents of an organizational response to institutional processes may involve distributed processes that depend upon actors below the strategic level of their organization (Gouldner, 1954; Hallet & Ventresca, 2006). For instance, in Kraatz Ventresca and Deng's (2010) aforementioned study, the power and professionalism of faculties and admission personnel was found to be of significant influence on a university's adoption of an enrolment management structure, in addition to the influence of university presidents. In universities where faculties and admission personnel had greater power and professionalism, enrolment management structures were less likely to be adopted; faculties and admission personnel were more empowered to advocate for and defend the traditionally held values that enrolment management pressures threatened to disrupt. In Baron, Murton, and Hannan's (1999) aforementioned study, technology start-ups with a higher proportion of women in their workforce during the first year of operation were less likely to subsequently adopt a bureaucratic structure, when controlling for the influence of a founding CEO's employment model preferences. This suggests that the preferences of the organizational base may exert influence irrespective of the founding CEO's preferences.

The influence of various attributes of organizational base personnel on an organization's response to institutional processes has been found in many other contexts. In a study of the corporate environmentalism movement in the petrochemical industry in the United States between 1960 and 1995, Hoffman (1997) found that petrochemical organizations initially hired environmental engineers to help them cope with environmental protection requirements. Over time however these employees exerted influence from within by becoming champions of environmental protection and building the business case for their organization's pursuit of sustainability. In a study of the

responses of 279 organizations to the employment rights movement in the United State between 1955 and 1985, Dobbin and Sutton (1998) showed how organizations created offices and recruited personnel to help them comply with employment rights legislation. Over time, middle managers employed within these offices disassociated themselves from the external pressures and championed the cause of equal opportunity and affirmative action purely on the basis of economic benefits; they encouraged their organization to adopt innovative human resource policies in pursuit of greater productivity and efficiency. In multiple other studies, scholars found that organizations with a relatively higher proportion of employees covered by a collective bargaining agreement were more likely to adopt certain types of human resource policies including those that support internal labour markets and grievance procedures (Pfeffer & Cohen, 1984; Sutton, Dobbin, Meyer, & Scott, 1994). In a study of mobilization tactics used by LGBT individuals, Scully and Creed (2005) found that the proactive actions of employees could enable the formation of a legitimate collective LGBT identity within organizations and facilitate their organization's subsequent adoption of a gay-friendly policy.

Taken together, these studies illustrate that such attributes as the power, interests and values of actors distributed throughout an organizational base influence an organization's response to institutional pressures. Later I will describe how Chapter 2 of this dissertation (Essay 1) adds to this literature by elaborating how members of an organizational base engaged in distinct processes of distributed institutional leadership as they responded to institutional pressures.

1.2.1.3 Characteristics of the organization as a whole

The third class of organizational antecedents pertains to various characteristics of the organizational entity as a whole. These characteristics include the organization's size, external connections and history, all of which will only be briefly summarized here. Size tends to be associated with an organization's visibility to external communities; organizations that are larger tend to be subject to greater media coverage (Fiss & Zajac, 2006) and greater scrutiny from government agencies (Dobbin, Edelman, Meyer, Scott, & Swidler, 1988; Edelman L. , 1992), both of which encourage conformance in pursuit of

legitimacy (Deephouse, 1996). External connections tend to facilitate the flow of information and therefore the diffusion of institutional templates or guidelines; organizations that have interlocking boards (Davis & Greve, 1997; Rao & Sivakumar, 1999) or membership in communities of practice that span across organizational boundaries (Brown & Duguid, 1991) tend to be privy to informational networks that encourage conformance (Brown & Duguid, 2017). History has an imprinting effect (Stinchcombe, 1965) that can exert dynamics of path-dependence upon organizations; organizations that have adopted certain institutional elements in the past are more likely to continue to reinforce these elements and avoid divergent alternatives that would entail significant costs (Baron, Hannan, & Burton, 1999; Boeker, 1989; Johnson V. , 2007).

These antecedents are well recognized and have come to take the form of control variables in more recent studies. For example, in Chapter 4 of this dissertation (Essay 3), I use size as a control variable and, in Chapter 3 of this dissertation (Essay 2), I exclude small organizations from the study since they were subject to different institutional dynamics. Later I will describe how Chapter 2 of this dissertation (Essay 1) re-visits the importance of one of the antecedents: history's imprinting.

1.2.1.4 Factors at the field level

Finally, at a field level, scholars have identified various antecedents of organizational responses to institutional pressures. Since this dissertation is focused on organizations within a single sector and jurisdiction, field-level antecedents are not central to my explanations of the antecedents of organizational responses, and so I will briefly describe field-level antecedents here. As previously discussed, organizational fields exert coercive, normative and mimetic forces that motivate organizational choices and behaviours (DiMaggio & Powell, 1983). That is not to say that the effects of organizational fields are necessarily isomorphic, but that institutional processes interact with organizational elements and actors' interest-based motivations as they consider their organization's best course of action (Dacin, Beal, & Ventresca, 1999; Oliver, 1991; Vermeulen, Zietsma, Greenwood, & Langley, 2016). Coercive forces mostly originate from regulations from the state which can impose its authority, issue threats or provide financial rewards to induce conformance with requirements (Scott, 1987). All else equal, the greater the

extent of surveillance and sanctions associated with coercive forces, the more organizations conform (Tolbert & Zucker, 1983). Normative forces mostly originate from the professions, trade associations and certification or accreditation bodies which supply legitimated templates and guidelines (Casille & Davis-Blake, 2002; Mezias, 1990). These groups engage in theorization activities that help develop and formalize norms of behaviour (Strang & Meyer, 1993). All else equal, the more formalized and pervasive the norms, the more organizations conform (Tolbert & Zucker, 1996). Mimetic forces mostly originate from peer groups which, by their repeated patterns of commitments and behaviours, create the appearance that certain templates or guidelines are associated with organizational success (Johnson, Dowd, & Ridgeway, 2006). All else equal, organizations are more likely to conform to legitimated commitments and behaviours that are exhibited by other organizations that are similar in terms of geographical proximity (Davis & Greve, 1997) or industry (Haunschild & Beckman, 1998). Later I will describe how Chapter 3 of this dissertation (Essay 2) advances a typology of organizational responses to such coercive, normative and mimetic forces.

1.2.2 Consequences of organizational responses to institutions

Consequences of organizational responses to institutional processes exist at the organizational and field/ institutional/ societal levels. Since this dissertation emphasizes the organizational consequences, I focus the review on the former and highlight field/ institutional/ societal consequences more succinctly. At an organizational level, scholars have identified various consequences that, for the purpose of this review, I have classified among three classes of variables.

1.2.2.1 Legitimacy and access to resources

The first class of organizational consequences pertains to the legitimacy judgements of external audiences. External audiences include various stakeholders such as the state, media and the broader public who perceive and assess the responses of organizations to identify whether “the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions (Suchman, 1995b, p. 574).” The importance of these evaluative processes was central to Meyer and

Rowan's (1977) contribution, which proposed that external audiences confer the legitimacy and resources that organizations need to survive. Management and organizational scholars have since produced a large and bustling body of work that describes both how these evaluations are made and their effects on organizations' performance and survival (Deephouse, Bundy, Tost, & Suchman, 2017). Overall this literature suggests that evaluations proceed through the interaction of distinct routines and cognitive-processes of audience members at micro (individuals), meso (organizations) and macro (society-wide, inter-organizational) levels (Bitektine & Haack, 2015). At a micro level, individual audience members primarily assess the propriety of the organization using their own judgement of what appropriate choices and behaviours ought to be (Dornbush & Scott, 1975). At a meso level, external organizations assess the validity of legitimacy judgements made by various individuals within their ranks about the appropriateness of an the organization so as to determine "the extent to which there appears to be a general consensus within a collectivity [of individuals] that the entity is appropriate for its social context" (Tost, 2011). The validity of such judgements made by meso-level organizations are then again evaluated at the macro-level by the media, regulators and the legal system to establish yet an additional, higher level of consensus regarding the appropriateness of the organization (Bitektine & Haack, 2015).

These collective legitimacy judgements affect the extent to which the entity needs to compete with other organizations for access to resources from various stakeholders, which consequently impacts its performance (Deephouse & Suchman, 2008). For instance, in a study of over 2,700 hospitals in the United States, Westphal, Gulati and Shortell (1997) found that hospitals that conformed to Total Quality Management guidelines were more likely to receive favourable ratings from their national accreditation agency (Joint Commission on Accreditation of Health Care Organizations), a major source of legitimacy within their industry that could affect a hospital's ability to recruit personnel, attract patients and access funding from various sources. In a study of 143 hospitals in the San Francisco Bay area of the United States between 1945 and 1990, Ruef and Scott (1998) found that endorsement by various accreditation bodies (e.g. American College of Surgeons, American Hospital Association) was associated with a higher likelihood of survival over the 46year period of their research.

Taken together, the literature suggests that the choices and behaviours that an organization adopts in response to institutional processes have an important effect on its legitimacy, resources, performance and survival. This organizational consequence is not a major focus of this dissertation but can be considered as part of the empirical backdrop of the research settings presented in Chapter 2 (Essay 1), Chapter 3 (Essay 2) and Chapter 4 (Essay 3) of this dissertation.

1.2.2.2 Processes of (de)coupling

The second class of organizational consequences pertains to internal/intra-organizational processes of (de)coupling. As previously discussed, decoupling was initially conceived as an intentional separation of an organization's formal response from its technical work systems (Meyer & Rowan, 1977), but more recent scholarship has found that decoupling can also occur unintentionally when organizational actors actively resist their implementation (e.g. Kellogg, 2012; Kern, Laguecir, & Leca, 2018). The higher the degree of incompatibility between an organization's formal response and such attributes as the goals, values, interests and beliefs of subgroups within the organization, the more likely unwitting dynamics of decoupling are to occur (Kraatz & Block, 2008; Besharov & Smith, 2014; Pache & Santos, 2010). For instance, in ethnographic studies of how hospitals in the United States responded to regulation that sought to limit surgeon's workweek to 80 hours, Kellogg (2009; 2012) demonstrated how clinical middle-managers resisted programs put in place by top managers who aimed to conform with the newly introduced requirement. Surgical residents were accustomed to working 100-120 weekly hours and while the prospect of achieving better work-life balance was welcomed among some residents, clinical middle-managers (surgical resident chiefs) resisted the change because it threatened to displace the longstanding values of their profession. In a different ethnographic study of how hospital departments in France responded to their Regional Health Authority's introduction of the casemix method, Kern, Laguecir and Leca (2018) demonstrated how clinicians resisted the implementation of casemix measures put in place by top managers. While clinicians would have financially benefitted from abiding by the casemix method, they resisted the new measures because

they would have needed to accept external supervision by administrators who would further erode the professional autonomy they so valued.

Moreover, other studies have shown that opposite dynamics can cause unwitting coupling to occur when the goals, values, interests and beliefs of subgroups are congruent with an organization's ceremonial policy (Edelman L. , 1992; Hoffman, 1997; Sauder & Espeland, 2009). For instance, in a study of the effects of the proliferation of rankings on law schools in the United States, Sauder and Espeland (2009) found that law school administrators initially sought to exploit rankings by 'manipulating' (Oliver, 1991) data without addressing the target elements rankings were meant to measure. While administrators and faculty members initially resented the rankings, they eventually internalized the structure of rankings by reinterpreting the value of their work to accord with the control measures that rankings provide. In summary, studies have demonstrated that unwitting (de)coupling occurs when the culture or politics of internal subgroups (Dobbin F., 1994) is incompatible with the intent of an organizations' formal policies and structures.

Other studies have demonstrated that (de)coupling can also occur wittingly. Decoupling, as originally defined, takes the form of ceremonial conformance (Meyer & Rowan, 1977) or 'avoidance' (Oliver, 1991) when an organization's formal response to institutions remains intentionally separated from technical processes (Fiss & Zajac, 2006; Kostova & Roth, 2002; Westphal, Gulati, & Shortell, 1997). For instance, in the aforementioned study by Westphal, Gulati and Shortell (1997), the diffusion of TQM in the organizational field caused hospitals to adopt a normatively legitimated version of TQM, which was only loosely integrated within hospitals' technical systems. In comparison, coupling occurs wittingly (Weick, 1976) when subgroups abide by the policies or structures put in place by top managers as part of their organization's attempt to 'acquiesce' (Oliver, 1991) or conform with institutional processes (Denis, Lamothe, & Langley, 2001; Spilane, Parise, & Sherer, 2011). For instance, in a longitudinal qualitative study of strategic coupling processes at five hospitals in Quebec between 1980 and 1998, Denis, Lamothe and Langley (2001) found that strategic change was only successful when pressures from the institutional environment simultaneously aligned

with the priorities of top management and commitments of members of the organizational base. In such cases, strategic change was enabled through the formation of harmonious and complementary constellations of leaders distributed throughout the hospital, from top management to members of the organizational base.

Taken together, the literature on witting and unwitting forms of (de)coupling has advanced understanding of internal/intraorganizational processes that contribute to the alignment or separation of organizations' formal structures and technical work systems in response to institutional pressures. Later I will describe how the typology developed in Chapter 3 of this dissertation (Essay 2) contributes to this literature.

1.2.2.3 Processes of (de)institutionalization

The third class of organizational consequences pertains to internal/intra-organizational processes of (de)institutionalization. Institutionalization refers to the process through which organizations embed institutional norms, rules and beliefs within the structural patterns that constrain and constitute the actions of organizational actors (Tolbert & Zucker, 1996). As an example, consider the embedding of affirmative action and diversity policies in organizations since the 1980s (Kalev, Dobbin, & Kelly, 2006). Institutionalization is usually reinforced over time as organizational actors build upon persistent elements imprinted over their organization's history in response to changes in their institutional environment (Selznick, 1957). Evidence suggests that organizations with a history of personnel formalization and responsiveness to normative pressures have been more likely to embed further affirmative action and diversity practices in response to institutional pressures (Dobbin, Kim, & Kalev, 2011). Over the last two decades, programs designed to advance affirmative action and diversity have become highly institutionalized within organizations, even though such programs are often ineffective (Dobbin & Kalev, 2017; Dobbin, Schrage, & Kalev, 2015).

Another implication of institutionalization is that, due to historical imprinting (Stinchcombe, 1965), elements that are institutionalized within organizations are particularly sticky and may not be easily changed or replaced (Colyvas & Jonsson, 2011). For example, institutionalization is one of the reasons why salary inequities between men

and women were particularly difficult to remedy, even amidst calls for reform (Martin, 1994). Additionally, in the aforementioned studies by Kellogg (2009; 2012), it was the deep institutionalization of practices associated with the historical 'iron man persona' of the surgery profession that made it so difficult for hospitals to comply with the new 80-hour workweek requirements. That is not to say that historical imprinting always prevents new institutional elements from being incorporated by an organization, but that disrupting these historically persistent elements may require the involvement of actors distributed at various organizational levels. For example, in one of the hospitals studied by Kellogg (2009; 2012), surgical residents at lower levels of the hospital were able to successfully mobilize to oppose clinical middle-managers who were resisting the implementation of the 80-hour work week program. Also, in the aforementioned study by Scully and Creed (2005), it was members of the organizational base that institutionalized norms of behaviour pertaining to the treatment of LGBT employees; they constructed and legitimated a collective LGBT identity and an associated repertoire of actions which they then diffused throughout their organization. It was only after these norms of behaviour were sufficiently institutionalized that the organization adopted formal LGBT policies.

In contrast, deinstitutionalization refers to the process through which an organization's structural patterns are disrupted or discontinued by newly emerging norms, rules and beliefs from the institutional environment (Oliver, 1992). The emergence of institutional norms, rules and beliefs can cause organizational actors to incorporate new norms of behaviour, thus eroding the structural patterns they had historically sought to uphold. Pressures for organizations to incorporate new structural patterns arise from beliefs, in organizations or their institutional environment, that there are functional, social or political problems associated with practices or structures that are currently institutionalized in the organization (Oliver, 1992). Functionally, institutionalized practices or structures may be perceived as underperforming or as providing inadequate guidelines for action. Socially, institutionalized practices or structures may be unpopular among groups that are gaining a growing amount of influence upon organizations. Politically, institutionalized practices or structures may be losing their base of support as the distribution of power and interests shifts in their disfavour. For instance, in a study of over 1,500 Japanese companies in various industries

between 1990 and 1997, Ahmadjian and Robinson (2001) found that the economic crisis of the 1990s caused some Japanese companies to abandon the longstanding institutionalized practice of lifetime employment. Japanese companies with relatively poor performance (functional pressure) were more likely to abandon lifetime employment practices, while Japanese companies that were more legitimate (social pressure) and visible (political pressure) were less likely to abandon those practices.

Yet another reason why deinstitutionalization might occur is due to an organization's attempt to incorporate multiple conflicting goals and practices (Besharov & Smith, 2014; Pache & Santos, 2010). Organizations are more likely to experience such deinstitutionalization when they are embedded within pluralistic institutional environments that issue conflicting prescriptions for action (Kraatz & Block, 2008). For instance, in a comparative study of two microfinance organizations, Battilana and Dorado (2010) demonstrated how these organizations struggled to simultaneously adhere to goals and practices of banking and international development. Whereas banking emphasized the maximization of profits by generating revenue from customers, international development emphasized the alleviation of poverty by providing access to loans for those most in need of financial support. In one of the microfinance organizations, a common purpose and identity was created that allowed loan officers to balance the goals and practices of both requirements. However, in the other microfinance organization, loan officers were expected to incorporate both requirements – an unrealistic expectation that led to extensive conflicts between loan officers and the deinstitutionalization of banking practices within the organization. In an ethnographic study of a rape crisis centre in Israel, Zilber (2002) showed how the incorporation of a professional therapy approach resulted in the deinstitutionalization of pre-existing practices that were associated with a feminist ideology. Feminist goals and practices had been institutionalized in the early years of the organization (1978-1982), but the incorporation of a professional therapy approach (1982-onward) led organizational members to reinterpret their work through the prism of therapeutic principles, causing them to abandon some of the feminist structural patterns upon which the organization was originally founded.

Taken together, these studies illustrate that (de)institutionalization involves complex internal/intra-organizational processes instigated by organizational actors' response to norms, rules and beliefs in the institutional environment. Later I will describe how Chapter 2 of this dissertation (Essay 1) advances understanding of the role of distributed leadership in processes of institutionalization, and how Chapter 3 of this dissertation (Essay 2) contributes a typology that describe configurations of organizational conditions that are sufficient for deinstitutionalization.

1.2.2.4 Repercussions at the field, institutional and societal levels

Finally, at a field/ institutional/ societal level, scholars have identified various consequences of organizational responses to institutional pressures. Since this dissertation is focused on the organizational consequences of these responses, I will only briefly outline the field/ institutional/ societal consequences here. As previously discussed, organizations are themselves members of their organizational field and therefore participate in processes that exert mimetic forces upon other organizations (DiMaggio & Powell, 1983). An important part of this process concerns organizations' role in the legitimation and diffusion of institutional elements. By conforming to institutional processes, organizations contribute to shared patterns of behaviour that further legitimate these very institutional elements (Johnson, Dowd, & Ridgeway, 2006). Additionally, as part of their response, some organizations engage in the theorization of solutions by creating or editing institutional elements (Sahlin & Wedlin, 2008; Suchman, 1995a) that may subsequently be diffused and institutionalized among other organizations (Tolbert & Zucker, 1996). Organizations may also actively participate in the creation, maintenance or disruption of institutions by using what Lawrence and Suddaby (2006) have termed 'institutional work'. Lastly, with respect to societal consequences, it is implied that organizations ultimately derive their legitimacy from the larger societal structures in which they are embedded (Pfeffer & Salancik, 1978). As institutional processes are subordinate to these societal structures (DiMaggio, 1986), organizational responses to those processes reflect broader societal values (Parsons, 1960). For example, it is self-evident that an organization that adopts a paternal leave policy has a broader impact on the families of its employees, and an organization that affirmatively employs

disadvantaged individuals has a broader impact on those communities. The societal consequences of organizational responses to institutional processes are particularly true of organizations in healthcare, education and other industries that affect societal outcomes by the very nature of their operations.

1.2.3 The hospital sector as a context

The healthcare industry, particularly the hospital sector, has been one the most generative research settings for management and organizational scholarship in institutional theory (Reay, Goodrick, & D'Aunno, 2021). Numerous reasons help account for why there has been such a focus on healthcare and hospitals. In this section, I describe three of these reasons, while highlighting some of the most germinal contributions of management and organizational scholars in this context.

1.2.3.1 Social and economic importance

First, healthcare is economically and socially important. It is one of the largest industries in the world, representing about 10 percent of gross domestic product in most developed countries, with hospitals representing the largest share of spending within the industry (Allen, 2019). Healthcare also has significant social implications pertaining to the health and wellbeing of people. As a result, healthcare organizations' economic environment is often in tension with its social goals – consumer spending on healthcare continues to increase which can prevent some individuals from accessing the level or quality of healthcare they need (Kissick, 1994). These tensions have been encapsulated by Berwick, Nolan, and Whittington (2008) under the concept of the 'Triple Aim', which summarizes the challenges facing healthcare organizations: reducing healthcare costs, while increasing equitable access to healthcare for those in need and improving the quality of healthcare services that patients receive. Moreover, as a result of its social importance, the healthcare industry is highly regulated and scrutinized by external communities such as media, regulators and the legal system (Bitektine & Haack, 2015), which makes them particularly susceptible to institutional processes (DiMaggio & Powell, 1983). Healthcare organizations are also subject to extensive reporting requirements (transparency) and

accountability frameworks, which intensifies the amount of scrutiny upon their organizational choices and behaviours.

In addition to being highly regulated and scrutinized, healthcare organizations tend to be publicly funded. Management and organizational scholarship has demonstrated that hospitals respond heterogeneously to regulations and funding mechanisms (Alexander & Scott, 1984; Cook, Shortell, Conrad, & Morrisey, 1983; D'Aunno, Succi, & Alexandre, 2000; Hesse, Krishnan, & Moers, 2016). For instance, in a study of 2,064 rural hospitals located across the United States between 1984 and 1991, D'Aunno, Succi, and Alexandre (2000) found that some of these hospitals converted to a new institutional template in response to cost containment efforts introduced by Medicare reforms, while others persisted with their institutional template. Hospitals were more likely to convert to a new template if they experienced greater mimetic pressures (DiMaggio & Powell, 1983) to convert due to their membership in a multihospital system or were located in a state where other hospitals tended to convert to the new template. Hospitals that had better access to capital were also more likely to convert. Hospitals were less likely to convert to a new template if they already conformed with normative standards, as indicated by accreditation by a national body (JCAHO) or registration as a non-profit or publicly owned entity. Thus, while hospitals and healthcare organizations more broadly are very dependent upon resources provided by their institutional environment, they may still respond heterogeneously. Later I will describe how Chapter 3 of this dissertation (Essay 2) contributes to this literature by demonstrating the organizational consequences of hospitals' heterogenous responses to a change in regulation and funding mechanism, whereas most of the scholarship has focused on the antecedents of these responses.

1.2.3.2 Professional service orientation

Second, healthcare organizations such as hospitals are a type of professional service firm, which means that they are constituted by a workforce that is characteristically knowledge-intensive, ideological and self-regulated (von Nordenflycht, 2010). In the case of a hospital, the professional workforce primarily consists of physicians, nurses and other clinical professionals. These professionals are distinguished from non-professional personnel by way of their ideological norms codified within specific codes of ethics,

which are taught over the course of formal training and enforced by professional associations (Leicht & Lyman, 2006). Central to these ideologies are the norms that professionals exert a strong preference for autonomy and are responsible for protecting the interests of customers and society. Professionals are also distinguished by way of their membership within an occupation that is self-regulated by a professional association (Torres, 1991). Separate from the state, this professional association certifies its members based on their demonstrated level of expertise and continued adherence to the code of ethics.

The implication of a professional service orientation in healthcare contexts such as hospitals is that these organizations are essentially bifurcated by two groups: clinical professionals and administrative non-professional personnel. Clinical personnel are largely autonomous and act according to the values and norms of their professional ideologies and self-regulating bodies, whereas the administrative or non-professional personnel are tasked with the more managerial aspects of their organization. Historically, medical professions have been able to exercise significant jurisdictional control over their domain (Starr, 1982), which has enabled them to self-organize within hospitals to oversee clinical activities and retain significant independence from their hospital's administrative controls (White W. D., 1982). As a result, the efforts of actors within hospitals have tended to be fragmented, with the professional and managerial subgroups each having their own distinct procedures and objectives, which are often in tension with each other (Johnson R. L., 1979; Mintzberg, 1997).

Studies have shown that in recent decades, managers have exerted increasingly greater and more direct control over clinical professionals (Scott, Ruef, Mendel, & Caronna, 2000), but the dual control structure persists regardless and therefore tensions between the objectives of administrative and clinical professionals within hospitals have remained (Nigam, Huising, & Golden, 2016). These tensions were previously illustrated by Kellogg's (2009; 2012) studies on chief surgical resident's resistance to the 80 hour work week programs introduced by top managers, and Kern, Laguecir and Leca's (2018) study on physicians' resistance to the casemix measures put in place by top managers. Further, because hospitals and other healthcare organizations are constrained and

constituted by a multiplicity of managerial, clinical and other (e.g. patient's, legal authorities') logics (Heimer, 1999; Heimer & Staffen, 1998), they are examples of what management and organizational scholars (Denis, Lamothe, & Langley, 2001; Kraatz & Block, 2008) have termed 'pluralistic organizations'. Achieving strategic or organizational change in such pluralistic contexts as hospitals therefore requires the engagement of clinical and administrative leaders distributed throughout the various levels of the organization (Denis, Lamothe, & Langley, 2001; Denis, Langley, & Sergi, 2012). As previously mentioned, Chapter 2 of this dissertation (Essay 1) addresses the role of distributed leadership in hospitals.

1.2.3.3 Managerial rationalization

Third, because of the increasing managerial rationalization of healthcare since the mid-1980s (Dunn & Jones, 2010; Scott, Ruef, Mendel, & Caronna, 2000), there have been a good deal of management techniques that have proliferated among healthcare organizations such as hospitals, even though these techniques are often maladapted for the context (Meyer & Rowan, 1977). For example, the diffusion of TQM among United States hospitals has been shown to be largely motivated by hospitals' desire to conform with normative expectations (Westphal, Gulati, & Shortell, 1997). Rather than pursuing TQM's promise of technical gain, hospitals adopted TQM to avoid a perceived threat of delegitimization (Kennedy & Fiss, 2009). By adopting TQM, hospitals were able to attain a favourable rating from their national accreditation body (e.g. JCAHO), which allowed them to maintain the legitimacy and access to resources they needed to survive (D'Aunno, Succi, & Alexandre, 2000; Ruef & Scott, 1998). In some cases, hospitals ceremonially adopted TQM (Kennedy & Fiss, 2009; Westphal, Gulati, & Shortell, 1997) whereas in other cases, they coopted TQM by reproducing pre-existing roles and objectives within its implementation instead of using TQM to transform their organization (Lozeau, Langley, & Denis, 2002). There is a general agreement among healthcare management scholars that managerial techniques for quality improvement are unlikely to lead to desired clinical improvements without abundant consideration of organization-specific or broader health system contingencies (Ferlie & Shortell, 2001; Nembhard, Alexander, Hoff, & Ramanujam, 2009). Overall, they may be better suited to

reducing costs or improving customer satisfaction than yielding meaningful change in clinical outcomes (Shortell, Bennett, & Byck, 1998; Walshe, 2009). Yet, management techniques for quality improvement continued to proliferate among healthcare organizations (Bate, Mendel, & Robert, 2008).

Managerial rationalization also spurred the field-level theorization (Strang & Meyer, 1993) of elaborate standard operating procedures (Levitt & March, 1988) such as clinical pathways, clinical standards and clinical order sets, which are designed with the intention of standardizing clinical practices, costs and outcomes within healthcare organizations. While, compared to TQM, these guidelines are more appropriate for the healthcare or hospital context (Bright, et al., 2012; Rotter, et al., 2010; Gonçalves-Bradley, Lannin, Clemson, Cameron, & Shepperd, 2016), their diffusion does not necessarily have isomorphic effects as they too can be coopted (Goodrick & Salancik, 1996). For instance, in a study of 319 fee-for-service (for-profit) and teaching (either non-profit or government owned) hospitals in California between 1965 and 1995, Goodrick and Salancik (1996) found that hospitals differed in their implementation of an institutional standard for caesarian procedures. The caesarian treatment standard offered ambiguous prescriptions for patients with moderate levels of risk, causing hospitals to interpret the standard through their own, heterogenous self-interests. Teaching hospitals tended to perform fewer caesarian surgeries on these patients because caesarian treatments entailed significant risks for adverse patient outcomes, as per available evidence. In contrast, hospitals seeking to maximize fee-for-service revenues performed them more frequently as their profit motive curtailed the best interest of patients when a patient’s need for caesarian surgery was ambiguous.

Finally, managerial rationalization also spurred new health system innovations designed to further the Triple Aim of healthcare (Berwick, Nolan, & Whittington, 2008). These innovations include service delivery innovations that aim to facilitate care transitions between providers or otherwise improve the care that patients receive while out in the community (e.g. telehealth, self-management tools). While these innovations are theoretically sound (Strang & Meyer, 1993), they often encounter practical problems that limit their effectiveness (Goodwin, Sonola, Thiel, & Kodner, 2013). Nonetheless,

these innovations tend to be promoted by networks of fashion setters such as consultants and government agencies (Abrahamson, 1991), and are sometimes popularized by a rhetoric of success from peers in the organizational field (Zbaracki, 1998). Therefore, even without evidence to support their effectiveness, healthcare organizations may still adopt these innovations for their symbolic association to rationality and progress (Abrahamson, 1996). Taken together, these studies illustrate that the managerial rationalization of healthcare has helped to proliferate managerial techniques, standard operating procedures and health system innovations that are often ambiguously related to their intended outcomes (Bromley & Powell, 2012). Later I will describe how the typology developed in Chapter 3 of this dissertation (Essay 2) advances our understanding of how the adoption of these guidelines interacts in configurations to affect clinical outcomes in hospitals.

1.2.3.4 Summary and implications

In conclusion, the healthcare industry is distinguished by its economic and social importance, professional service orientation and managerial rationalization. Hospitals represent one of the most studied forms of healthcare organization by institutional theorists because hospitals are subject to both high technical (market) requirements and high institutional requirements. Scott and Meyer (1983; 1991) proposed that organizations are subject to technical (market) and institutional requirements to varying degrees, and that the extent of these requirements varies depending on the type of organization. For example, in contrast to hospitals, some organizations such as schools or prisons are subject to low technical requirements but high institutional requirements, whereas other types of organizations are subject to low institutional requirements with varying degrees of technical requirements, including manufacturers (high technical requirements) or fitness clubs (low technical requirements). Even within the healthcare industry, hospitals experience much greater technical requirements than say psychiatric centres or family health clinics. The hospital sector therefore represents a context where organizations are constantly grappling with competing technical and institutional prescriptions; the constant emergence of new institutional demands causes them to be perpetually reforming (Brunsson & Olsen, 1993).

1.3 Hospitals' structural, political, cultural, technical and gender-centered responses to institutions

The three Essays that constitute this dissertation are each focused on how hospitals responded to an emerging institutional requirement concerning: 1) energy conservation and climate mitigation; 2) cost reduction and clinical quality improvement, and; 3) women's health issues. Studying how hospitals responded to these three institutional requirements provided an opportunity to generate a greater understanding of the antecedents and consequences of their responses. Specifically, Essay 1 focuses on the *antecedents* and *consequences* of hospitals' *structural responses* to an external mandate for energy conservation and climate mitigation. Essay 2 focuses on the *consequence* of hospitals' *political*, *cultural* and *technical* responses to conflicting pressures for cost reduction and clinical quality improvement. Essay 3 focuses on the *antecedents* of hospitals' *gender-centered responses* to emerging expectations around the safety of labour and delivery procedures. Each of these studies offered unique opportunities to elaborate and extend the extant literature in institutional theory. In this section, I discuss these opportunities by describing current scholarly conversations, summarizing the three essays and highlighting the essays' contributions to the literature.

1.3.1 Structural responses to institutions: Their organizational antecedents and consequences

The aforementioned review highlighted how early institutional theorists (DiMaggio & Powell, 1983; Meyer & Rowan, 1977; Tolbert & Zucker, 1983) emphasized the isomorphic effects that institutional and field-level processes exert upon organizational structure. Later on, institutional scholars began to put increasingly greater emphasis on intra-organizational factors—such as the preferences (Baron, Hannan, & Burton, 1999) or experiences (Kraatz, Ventresca, & Deng, 2010) of top managers—that affect organizations' structural responses. In this latter category, there has been a resurgence of interest in the role of senior leaders in infusing purpose into their organization's structures (Kraatz, Flores, & Chandler, 2020; Rojas, 2010; Selznick, 1957). By building purpose into organizational structures, institutional leaders empower individuals most

closely associated with their organization's values to navigate amidst competing technical and institutional demands (Besharov & Khurana, 2015; Selznick, 1992).

Pluralistic contexts are particularly salient settings for institutional leadership (Kraatz & Block, 2008). Yet, there is a paucity of institutional leadership research in pluralistic contexts such as hospitals, where power and authority are diffused throughout different levels, functions and professional disciplines within the organization (Denis, Lamothe, & Langley, 2001). Because hospitals are comprised of multiple hierarchies and constituencies, none of which holds authority over the other, organizational change tends to depend upon distributed or collective processes of leadership involving both the organizational base and top management (Denis, Langley, & Sergi, 2012). Literature has just begun to investigate how leaders distributed throughout the organizational base influence their organization's structures (Soderstrom & Weber, 2020), but similar investigations within pluralistic contexts such as hospitals are lacking.

Moreover, the existing body of work on distributed leadership largely takes as given the constraints caused by organizational structures (Huxham & Vangen, 2000; Martin, Currie, & Finn, 2009). Therefore, distributed leadership literature overlooks the potential for members of the organizational base to infuse purpose into their organization's structures through agentic actions. Yet, we know that, in pluralistic contexts, institutional and organizational structures enable a range of agentic action (Battilana & D'Aunno, 2009; Sewell, 1992); and that the multiplicity of values or logics support divergent structures and modes of behaviour (Friedland & Alford, 1991; Seo & Creed, 2002).

1.3.1.1 Essay 1: Caring for patients and mother nature: Integration of core and peripheral concerns in pluralistic organizations

Essay 1 uses a qualitative method based on naturalistic inquiry (Greenwood & Suddaby, 2006; Lincoln & Guba, 1985) to investigate how Ontario hospitals responded to a provincial mandate for climate mitigation and energy conservation. Using semi-structured interviews, participant observations and archival data which included hospitals' energy audits and Conservation and Demand Management plans, it uncovers

two archetypal approaches to the evaluation, adoption and implementation of energy conservation projects. In one archetype, which we label Dominant, energy conservation was kept on the periphery and detached from their provision of high-quality and affordable patient care. In the other, which we label Green, energy conservation was integrated into how patient care was provided.

Further, Essay 1 develops a model of institutional leadership that elaborates processes through which distributed leaders infused energy conservation values into the structures that governed the evaluation, adoption and implementation of energy efficiency projects in their hospital. Through the creation, maintenance and disruption of value-systems (Lawrence & Suddaby, 2006), distributed institutional leaders in Green hospitals further integrated energy conservation with their hospital's clinical mission of delivering high-quality and affordable patient care. The creation of value-systems involved the development and elaboration of energy conservation values and purposes using three sub-processes of institutional work: (a) advocacy, (b) theorizing, and (c) defining work. The maintenance of value-systems involved building supportive structures and processes for energy conservation using two sub-processes of institutional work: (d) enabling, and (e) embedding and routinizing work. The disruption of value-systems involved disrupting pre-existent patient care value-systems to further organizational change using two-sub processes of institutional work: (f) disassociation, and (g) disconnecting work.

Essay 1 makes several contributions to research on the antecedents and consequences of organizations' responses to institutional processes:

- It provides a distributed process model of institutional leadership that elaborating how value-infusion may depend upon distributed change agency (Gehman, Trevino, & Garud, 2013; Suddaby, Elsbach, Greenwood, Meyer, & Zilber, 2010; Zilber, 2002).
- It makes explicit the link between value-infusion and institutional work (Kraatz, 2009) by showing how institutional leadership emerged from sub-processes of

institutional work within organizations (Currie, Lockett, Finn, Martin, & Wairing, 2012; Wright, Zammuto, & Liesch, 2017).

- It contributes to the literature on historical imprinting and organizational polities (Stinchcombe, 1965; Waeger & Weber, 2019) by demonstrating how the integration of peripheral values for energy conservation depended upon dedicated structures and the development of support for these values among a broad array of organizational members.

1.3.2 Configurations of political, cultural and technical responses to institutions: Their organizational consequences

Advances in configurational methodologies have recently spurred the revival of a configurational paradigm in organizational and management scholarship (Fiss P. C., 2007; Fiss, 2011; Furnari, et al., forthcoming). This revival holds promise for the expansion of configurational research and theorizing about the consequences of organizations' responses to the institutional environment (in addition to the task environment). Starting in the late 1970s, scholars (Miles & Snow, 1978; Miller, 1986; 1992) demonstrated that organizations must configure their strategies, structures and processes in a manner that is both internally coherent and conformant with stable and emergent characteristics of their task environment (Lawrence & Lorsch, 1967), or else risk their survival. These early works recognized that organizations consist in configurations of elements, and that these configurations are strongly influenced by the external environment, but they overlooked the implications of the institutional environment (Meyer, Tsui, & Hinings, 1993; Miller, 1987).

Studying how the institutional environment shapes organizational configurations is perhaps more challenging than focusing on the task environment alone because institutional complexity provides organizations with alternative prescriptions for action (Greenwood, Raynard, Kodeith, & Micelotta, 2011). These conditions, in turn, enable organizations to respond with greater discretion, which can lead to more heterogeneity in organizational responses (Ocasio & Radoynovska, 2016). The advances in configurational methods have enabled researchers to implement complex conceptualizations and empirical investigations through set theory, which holds great

promise for research on organizational responses to institutional complexity (Misangyi, et al., 2017). For instance, Zhao, Fisher, Lounsbury, and Miller (2017) suggested that configurational methods could be used to integrate institutional complexity with prior works on organizations' responses to the task environment.

The institutional environment itself can be conceived as a configuration. For instance, Raynard (2016) showed how logics interact to shape how organizations experience institutional complexity. Her framework highlights how the incompatibility, prioritization and jurisdictional overlap between logics combine to produce institutional landscapes with specific implications for organizational responses. Moreover, typologies of institutional processes provided by Scott (2014), DiMaggio and Powell (1983) and Oliver's (1992) seminal works can also be seen through a configurational lens that incorporates interactions between institutional and organizational elements. These elements are summarized in Table 1.

Table 1: Typologies of institutional, field and organizational elements

Author	**Scott, 2014**	**DiMaggio and Powell, 1983**	**Oliver, 1992**	**Ansari, Fiss and Zajac, 2010**
Level of analysis	*Institution*	*Field*	*Institution, field, organization*	*Organization*
Elements	Regulative pillar	Coercive pressure	Political pressure	Political fit
	Cultural-cognitive pillar	Mimetic pressure	Social pressure	Cultural fit
	Normative pillar	Normative pressure	Functional pressure	Technical fit

Ansari, Fiss and Zajac (2010) were among the first to use configurational logic to conceptualize how organizations respond to such institutional processes. They showed how political, cultural and technical systems within organizations interact with practices from their institutional environment. They demonstrated that organizations likely vary in the degree to which they adapt practices from their institutional environment, and that the extent of adaptation will depend on the degree of fit between the practices themselves and political, cultural and technical systems within the organization. They propose that organizations with a high degree of political, cultural and technical fit are likely to implement practices more extensively and with greater fidelity than organizations with

poor political, cultural and technical fit. Yet, they do not examine how political, cultural and technical systems themselves interact within organizations, and how these systems might change as a result of institutional processes.

Further research is needed to understand how organizations' political, cultural and technical systems change as organizations respond to institutional processes, and, further, what the consequences of those changes may be. From a political perspective, institutional pressures could sway the objectives of powerful actors within the organization, thereby affecting organizational members' incentives and access to resources (Oliver, 1992). From a cultural perspective, institutional pressures could influence what practices and outcomes organizational actors value most (Oliver, 1992). From a technical perspective, institutional pressures might impact what best-practices or procedures an organization adopts in pursuit of its various goals (Oliver, 1992). These political, cultural and technical responses likely interact within configurations to affect different dynamics of organizational change and performance.

1.3.2.1 Essay 2: Unwitting consequences of hospitals' responses to conflicting institutional pressures

Essay 2 studies how organizations' political, cultural and technical responses interact by investigating Ontario hospitals' responses to conflicting pressures for cost reduction and clinical quality improvement for patients with chronic diseases. As is the norm in configurational studies, Essay 2 did not have a priori hypotheses, but used an exploratory, iterative approach to data collection, analysis and conceptual development (Furnari, et al., forthcoming).

To assess a hospital's political response, I considered (a) whether the hospital had an ambitious target for quality improvement and (b) whether it incentivized its senior leaders to pursue either cost reduction or quality improvement. To assess a hospital's cultural responses, I considered (c) whether the hospital was pursuing length-of-stay reduction. To assess a hospital's technical response, I considered (d) whether the hospital had extensive plans to implement technically efficient procedures and (e) whether it had extensive plans to implement technically inefficient procedures. To account for factors in

the health system that are outside of a hospital's control, I considered (f) whether there had been changes in the proportion of patients receiving timely follow-up specialist visits, and (g) whether the hospital was in a region where bundled-care programs were being implemented.

The results of the configurational analysis suggest that hospitals' political, cultural and technical responses interact within configurations that affect the implementation of clinical best-practices and pathways for patients with chronic diseases. When all three forms of organizational responses are aligned with the goal of improving clinical outcomes, hospitals were able to extensively implement technically efficient clinical standards and improve the utilization of best clinical practices and pathways. However, misalignment at the level of any of the three forms of responses led to a deterioration of clinical services and outcomes through either superficial, symbolic or subversive implementation. Superficial implementation occurred when a hospital had both comprehensive plans for the implementation of technically efficient procedures and a culture that valued clinical improvement, but the lack of political support for quality improvement caused those procedures to be implemented in a manner that emphasized cost-reduction. Symbolic implementation occurred, irrespective of a hospital's cultural and political response, when technically inefficient procedures were implemented, reducing the utilization of best clinical practices and pathways. Subversive implementation occurred when cultural inconsistency caused clinicians to value length of stay reduction over improving readmissions.

Essay 2 makes several contributions to research on the consequences of organizations' responses to institutions:

- It advances understanding of how organizations' political, cultural and technical systems respond to institutional processes and interact to affect various dynamics of organizational change and performance.
- It introduces a typology of the consequences of organizations' responses to conflicting institutional pressures through the use of configurational analysis, a

relatively under-utilized method in institutional scholarship (Misangyi, et al., 2017).

- It contributes to the literature on means-ends decoupling (Bromley & Powell, 2012) by demonstrating how adverse political dynamics can render superficial the implementation of standard operating procedures or institutional guidelines.
- It contributes to the literature on deinstitutionalization (Oliver, 1992) by demonstrating how adverse cultural change can subvert organizational practices associated with a conflicting institutional requirement.
- It complements existing research on organizational responses to institutional complexity (Greenwood, Raynard, Kodeith, & Micelotta, 2011) by building conceptual understanding and language about unwitting dynamics of decoupling and deinstitutionalization in organizations.

1.3.3 Gender-centered responses to institutions: Their organizational antecedents

Organizational responses have increasingly been framed through the lens of identity (Alvesson, Ashcraft, & Thomas, 2008). By framing organizational responses through the lens of identity, organization and management scholars have brought a specific focus to how organizations affect members who identify with particular groups. For instance, some of the empirical research reviewed thus far examined organizational responses from a framing of sexuality (Scully & Creed, 2005) and gender (Kellogg, 2009; 2012). Scully and Creed's (2005) study examined the emergence of pro-LGBT policies in organizations. Kellogg's (2009; 2012) studies examined challenges to the adoption of 80-hour workweek policies that threatened the "iron man" identity of surgeons in hospitals, but furthered the work-life balance values of women and younger residents.

In the literature, antecedents of organizations' identity-centered responses are wide-ranging. Scully and Creed's (2005) study focused on the role of LGBT employees who built a collective LGBT identity among organizational members and diffused a repertoire of legitimate LGBT actions which they encouraged other employees to adopt. Kellogg's (2009; 2012) studies focused on the role of identity-congruent clinicians such as female surgeons and residents who self-organized to overcome middle-managers'

challenges to 80-hour workweek policies. Yet other research, such as Goodrick and Salancik's (1996) work on hospitals' adoption of clinical standards aimed at improving health outcomes for women during childbirth, has found that some antecedents are more identity-agnostic. Goodrick and Salancik (1996) found that hospitals' fee-for-service orientation caused their clinicians to undertake caesarian procedures more frequently than in teaching and non-profit hospitals, potentially exposing female patients to unnecessary health risks.

Most of the research on antecedents of organizations' identity-centered responses has drawn from social identity theory (Ashforth & Mael, 1989). Within this body of work, there has been a particular focus on gender (Ely & Padavid, 2007), especially in the area of leadership (Eagly & Heilman, 2016). Applied to leadership, social identity theory proposes that female leaders are more likely to develop commitments to the norms, values and goals of women employees and other stakeholders (Hogg, 2001; Meyer, Becker, & Van Dick, 2006). This prediction has been supported in empirical literature which has found that female representation at the level of the CEO or board of directors is associated with both greater subsequent levels of commitment to gender equality as well as organizational change that favours the integration of feminist goals and values of employees. For instance, studies on Fortune 500 companies from 2001 to 2010 found that organizations headed by a female CEO or with several female members on their board of directors were more likely to adopt policies and practices that support gender and sexual diversity among their employees (Cook & Glass, 2016; Glass & Cook, 2018). Other empirical work has found that female CEOs help reduce the gender wage gap (Flabbi, Macis, Moro, & Schivardi, 2019) and gender discrimination during layoffs (Tate & Yang, 2015) or promotions (Kunze & Miller, 2017).

To my knowledge, there are no empirical studies that look at the influence of female leaders on the gender-centered interests of non-employee stakeholders such as patients or consumers. However, broader empirical literature indicates that female leaders tend to advance the interests of non-employee stakeholders in ways that are consistent with social identity-based leadership theory. For instance, there is broad empirical support that companies with female representation at the level of the CEO or board of

directors are associated with greater levels of ethical and social performance (Glass & Cook, 2018; Isidro & Sobral, 2015; Manner, 2010), environmental responsibility (Post, Rahman, & Rubow, 2011), philanthropy (Williams, 2003), corporate social responsibility (Rao & Tilt, 2016), sustainability (Ben-Amar, Chang, & McIlkenny, 2017) and shareholder wealth (Dezsö & Ross, 2012; Jeong & Harrison, 2017). Taken together, the empirical literature suggests that female leaders are likely to abide by more prototypically female preferences for ethical decision-making, social justice and a stronger 'ethics of care' (Blau, 1977).

1.3.3.1 Essay 3: Hospital leader gender identity's effect on organizational responsiveness to women's health issues

The empirical literature has yet to investigate whether influence of female CEOs extends to non-employee stakeholders such as women consumers or patients. Therefore, Essay 3 develops and investigate hypotheses to extend the empirical body of work on social identity-based leadership theory within this context. Essay 3 examines Ontario hospitals' responses to normative pressures for reducing medical failures during childbirth.

Essay 3 hypothesizes that female CEO-led hospitals are more likely to address clinicians' tendencies to withhold information on medical failures affecting women patients in their care, and are also more likely to reduce the rate of medical failures affecting women patients in their care, over time. It also hypothesizes that resource dependence (Pfeffer & Salancik, 1978) attenuates the effect of female CEO's gender identity on baseline reporting levels and change in medical failures affecting women in hospitals. During the early 2000's, several provincial and national initiatives were put in place to help address health inequities experienced by women. Between 2004/05 and 2006/07, Ontario hospitals were required to report information on the rate of women patients who experience adverse events during childbirth. Essay 3 uses latent growth modelling to analyze hospitals' baseline reporting levels and change in childbirth-related adverse events during this time period.

The conditional latent growth model found that hospitals led by female CEOs had significantly higher baseline reporting levels and change in childbirth-related adverse

events. It also found that female CEOs' perception of resource dependence significantly attenuated the effects of CEO gender on baseline reporting levels and change in childbirth-related adverse events. These findings provide further support for the predictions of the social identity-based theory of leadership (Hogg, 2001). These findings also provide support for resource dependence theory's prediction that hospitals are likely to withhold information on practices and outcomes valued by external actors (Pfeffer, 1981). Taken together, the findings help explain why organizations within a single organizational field respond differently to normative pressures.

Essay 3 makes several contributions to research on the antecedents of organizations' responses to institutions:

- It extends the empirical body of work on gender identity and leadership (Eagly & Heilman, 2016) into an under-explored context by examining how the gender identity of leaders influences organizational practices and outcomes affecting non-employee female stakeholders such as women patients and consumers.
- It contributes to the literature on social identity-based leadership theory (Hogg, 2001) by demonstrating how the social identity of a CEO can influence subordinates to more openly share their failures with their superiors and engaging in learning and quality improvement efforts to reduce the frequency of failures over time.
- It contributes to the literature on resource dependence theory (Pfeffer, 1981; Pfeffer & Salancik, 1978) and role congruity theory (Eagly & Karau, 2002) by demonstrating how leaders' perception of their organization's resource dependence can attenuate the effect of leaders' social identity on the reporting and reduction of failures.
- It contributes to the literature on decoupling as hypocrisy (Brunsson, 1989) by showing how organizations' tendency to withhold information on practices and outcomes valued by external actors can be lessened by the social identity of organizational leaders.

1.4 Conclusion

In this chapter, I have introduced this dissertation by highlighting relevant developments in institutional theory, with a particular emphasis on the antecedents and consequences of organizations' responses to institutional processes. I have also described why institutional scholars have been especially interested in hospitals and healthcare organizations more broadly. I then took a deeper dive into the narrower scholarly conversations that each essay contributes to and elaborated on the content and contributions of each essay. The dissertation finds that value-infusion processes distributed at lower levels of an organization (Essay 1) and the gender identity of top managers (Essay 3) are important antecedents to organizational responses. The dissertation also finds that organizational responses interact in configurations that consequently affect various types of unwitting organizational change and processes of deinstitutionalization and decoupling (Essay 2).

1.5 Dissertation structure and format

The structure and format of this dissertation complies with the Integrated-Article specifications of Western University's School of Graduate and Postdoctoral Studies. As per these specifications, Essays 1, 2 and 3 are contained in Chapters 2, 3 and 4, respectively. Chapter 5 presents a reflection on the overall contribution of this dissertation. References and appendices are provided separately at the end of each Chapter. Tables and figures are numbered continuously throughout the dissertation. Table 1 presents a broad overview of the three essays.

Table 2: Overview of dissertation essays

	Essay 1	**Essay 2**	**Essay 3**
Essay title	*Caring for patients and mother nature: Integration of core and peripheral concerns in pluralistic organizations*	*Unwitting consequences of hospitals' responses to conflicting institutional pressures*	*Hospital leader gender identity's effect on organizational responsiveness to women's health issues*

Research question	Why and how are peripheral values and purposes infused within an organization's structures and processes?	How do politics, culture and technical procedures interact to affect organizational change and performance?	Why do organizations within a single organizational field differ in their responsiveness to normative pressures?
Theoretical foundations	Value infusion, institutional work, distributed leadership	Means–ends decoupling, deinstitutionalization	Social identity theory, resource dependence theory
Empirical setting	Ontario hospitals' responses to the Green Energy Act (2013-2015)	Ontario hospitals' responses to the Excellent Care for All Act and the Health System Funding Reform (2017-2018)	Ontario hospitals' responses to women's health issues (2004/05-2006/07)
Research design	Inductive; naturalistic inquiry; multiple case studies; small-N	Abductive; fuzzy-set Qualitative Comparative Analysis; interviews; moderate-N	Deductive; latent growth modelling; survey; moderate-N
Submission status	Preparing for submission to Academy of Management Journal	Preparing for submission to Administrative Science Quarterly	Preparing for submission to Journal of Management

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Chapter 2

2 Caring for patients and mother nature: Integration of core and peripheral concerns in pluralistic organizations

2.1 Introduction

In a recent re-emergence of institutional leadership literature, scholars have pointed to the role of leaders in cultivating *values and purposes* that infuse meaning into their organization (Besharov & Khurana, 2015; Kraatz, Flores, & Chandler, 2020; Raffaelli & Glynn, 2015). Values and purposes are particularly important resources upon which leaders can draw when attempting to facilitate organizational change (Selznick, 1957). Yet, when the impetus for organizational change comes from an external mandate that is incongruent with the core values of an organization, the organization tends to prioritize their core values (Besharov & Smith, 2014). This suggests that strong historical imprinting (Stinchcombe, 1965) causes new values and purposes to be seen as peripheral to an organization, which makes their incorporation difficult irrespective of an external mandate to do so (Waeger & Weber, 2019).

Existing work into institutional leadership has emphasized the role of senior leaders in infusing values and purposes into an organization. Yet, scholars of organizational change (Tsoukas & Chia, 2002) suggest that incorporating new, potentially peripheral concerns into organizational practices requires much broader involvement than simply top management. For example, Soderstrom and Weber (2020) demonstrate how internal advocates and distributed processes at middle and lower levels of an organization shape the emergence of structures and thus the trajectory of organizational change. This suggests that, to explain how peripheral concerns can become core to the organization, research into institutional leadership must consider the involvement of a broad range of actors within the organization.

Nonetheless, we do not have adequate theory to explain the tactics that leaders distributed throughout the organization use to cultivate new values and purposes and integrate them with existing ones during times of externally mandated change. This is

important because organizational change programs challenge routinized forms of behavior and heighten attention on the core values of the organization as the guide for action (Swidler, 1986). Thus, any attempt to alter or add to these values will likely encounter resistance from top management and other stakeholders. Without a clear grasp on how leaders infuse new values and purposes into their organization and integrate them with existing ones during times of externally mandated change, we cannot fully understand how organizations become institutionalized (Selznick, 1957).

To answer this question, we used naturalistic inquiry (Greenwood & Suddaby, 2006; Lincoln & Guba, 1985), an inductive, qualitative approach that included participant observation, interviews, and archival investigation to examine how hospitals, in the Canadian province of Ontario, incorporated energy conservation into their organizational practices. The introduction of the Green Energy Act in 2009 encouraged Ontario hospitals to use renewable energy and reduce their greenhouse gas emissions and energy consumption. However, since hospitals have strong core imperatives around the provision of affordable, quality and accessible patient care (Dunn & Jones, 2010; Reay & Hinings, 2009; Scott, Ruef, Mendel, & Caronna, 2000), the inclusion of such peripheral concerns as energy conservation demanded behavioral change that made visible the infusion of new values and purposes.

We explain differences in the evaluation, adoption and implementation of energy conservation and climate mitigation projects among two organizational archetypes: Dominant and Green. Dominant archetype hospitals considered the external mandate to be in conflict with their core values, which resulted in a narrow response to the mandate, which remained on the periphery of the organization. In contrast, Green archetype hospitals embraced the mandate and incorporated its requirements into the core values and purposes of their organization.

By focusing on the less-explored institutional processes of value-infusion, we theorize that Green archetype hospitals followed a divergent path from hospitals in the Dominant archetype, as they balanced the requirements of the external mandate and their own internal values and purposes. We propose that, in Green archetype hospitals, leaders

distributed throughout the organizational base engaged in three stages of institutional work–creating, maintaining, and disrupting (Lawrence & Suddaby, 2006)–that hospitals in the Dominant archetype did not. Moreover, actors in the Green archetype engaged in cross-departmental collaboration and promulgated the peripheral concerns as core to the organization. We end by discussing the implications of our findings by recasting Selznick's (1957) original conception of institutional leadership in pluralistic contexts.

2.2 The role of leadership in organizational change

Building on Selznick's (1957) original work in Leadership in Administration, institutional leadership scholars have drawn attention to the role of senior leaders in promoting and protecting the values and purposes of their organization (Maclean, Harvey, Sillince, & Golant, 2018; Rojas, 2010). This body of work has elaborated the mechanisms (Raffaelli & Glynn, 2015) in which top managers engage to define their organization's mission and values, build support from various internal and external audiences toward those purposes, and create structures and processes that embody these values to ensure the maintenance of an organization's integrity (Selznick, 1957; Selznick, 1992).

Central to this work is the role of the organization's values in guiding action. As a result, much of this work has emphasized the imperative to protect these values from adverse internal and external pressures (Besharov & Khurana, 2015). An integral part of this effort relies on the role of leaders in creating and maintaining value-infused structures and processes in their organization (Maclean, Harvey, Sillince, & Golant, 2018; Rojas, 2010; Selznick, 1957). In fact, "values need congenial, sustaining social structures if they are to be realized, even partially" (Kraatz, Ventresca, & Deng, 2010, p. 1523). One important function of such structures is to provide organizational subgroups with the autonomy (Selznick, 1992; Washington, Boal, & Davis, 2008) needed to collectively uphold values in a decentralized manner (Besharov & Khurana, 2015; Kraatz, Ventresca, & Deng, 2010; Perkmann & Spicer, 2014). This suggests that existing organizational structures and processes have an important mediating role to play in the process by which external demands can infuse new values and purposes into the organization (Weber & Waeger, 2017).

In times of organizational change, values offer an even more potent guide for action than they do in settled times (Swidler, 1986). When the requisite change conflicts with existing values, the structures and processes that prioritize the maintenance of the existing values (Besharov & Smith, 2014) can be detrimental to the proposed change. In effect, the autonomous subgroups are insulated from the concerns of the change initiative and therefore are able to continue to act in accord with their pre-existing values. To overcome the tendency to resist change, leaders can leverage the variation in roles and interests of the various stakeholders of the change initiative (Besharov & Khurana, 2015; Kraatz, Flores, & Chandler, 2020; Raffaelli & Glynn, 2015). Yet, this tactic comes at a price: it may challenge the existing values of the organization or exacerbate conflict among its various stakeholders (Battilana & Dorado, 2010; Kellogg, 2012).

In many cases, however, senior leaders can transcend the potential for disparate value systems among its various stakeholders by "adjudicating between, and finding common ground among, internal sub-groups and external coalitions identified with potentially competing values" (Besharov & Khurana, 2015, p. 64). This creates the possibility that conflicts among stakeholders will be directed towards productive ends, rather than pit the external mandate against the internal values of the organization (Kraatz & Block, 2008; Kraatz & Flores, 2015). Hence, they help ensure that organizational change proceeds in accordance with the requirements of the institutional environment (Amis, Slack, & Hinings, 2002) in ways that are not antagonistic to the core values of the organization.

However, by foregrounding top managers in the cultivation of values and purposes within the organization, institutional leadership scholars have bracketed the role of other important leaders (Besharov & Khurana, 2015; Raffaelli & Glynn, 2015). Management scholars have only recently begun to investigate how this important institutional work is distributed among a wide-range of organizational actors (Currie, Lockett, Finn, Martin, & Wairing, 2012; Wright, Zammuto, & Liesch, 2017), and how that work influences organizational structures and processes (Huising, 2019; Soderstrom & Weber, 2020). Although some scholars of institutional leadership have acknowledged the role of other actors such as department directors, middle-managers and front-line

workers (Kraatz, Ventresca, & Deng, 2010; Rojas, 2010), their involvement was not central to their explanations of organizational change.

Therefore, while Selznick's work (1957) and subsequent scholarship was based on the image of institutional leadership residing within the senior management of the organization, it is important to recognize that institutional leadership in organizations cannot easily be limited to senior leaders when these organizations are subject to pluralistic demands (Rojas, 2010). In pluralistic organizations, leadership is often widely distributed across diverse professional and administrative groups (Denis, Langley, & Sergi, 2012). For instance, Mintzberg (1997) described how hospitals consist in "four worlds"–cure, care, control and community–each of which have different values, interests and expertise and must either compete against each other for influence or collaborate in areas of mutual benefit. In pluralistic organizations such as hospitals, the decentralization in authority and power causes leadership to be distributed (Denis, Lamothe, & Langley, 2001), which has implications for how the organizations navigate change in response to the multiple demands of their institutional environment (Kraatz & Block, 2008).

It would seem, therefore, that the role of a wide range of leaders should be central to change processes as actors attempt to infuse values into the structures and processes of pluralistic organizations. For instance, research by Gehman, Trevino and Garud (2013) as well as Zilber (2002) has shown that a broad range of actors engage in value-infusion throughout an organization. With this in mind, a separate stream of leadership research (Gronn, 2002) incorporates the role of middle managers and front-line workers who span various professional divides (Buchanan, Addicott, Fitzgerald, Ferlie, & Baeza, 2007; Fitzgerald, Ferlie, McGivern, & Buchanan, 2013). Distributed actors bring together different resources, capabilities and sources of legitimacy in collectively addressing common opportunities and challenges in their organization (Chreim, Langley, Comeau-Vallée, Huq, & Reay, 2013; Chreim, Langley, Reay, Comeau-Vallée, & Huq, 2020). During distributed processes of leadership, the initiative of some actors are built upon by others at different times and in different ways, leading to a gradual change over time (Chreim, Williams, Janz, & Dastmalchian, 2010).

Yet, because institutional leadership has been portrayed as relying on the work of an organization's top management, it has paid less attention to the distributed nature of this process in pluralistic organizations. Further, while distributed leadership literature has focused on organizational change initiatives, by both emphasizing instrumental concerns and taking as given the constraints caused by organizational structures (Huxham & Vangen, 2000; Martin, Currie, & Finn, 2009), it does not give sufficient agency to various members of the organization in infusing values into the structures and processes as part of that change initiative. Therefore, neither literature explains how a broad range of leaders across an organization work together to infuse values into the structures and processes of their organization. In this paper we seek to extend existing theory in both the institutional leadership and distributed leadership literatures by exploring how leaders from across an organization work together to infuse values into the organizational structures and processes in order to facilitate organizational change.

2.3 Method

This study emerged from ongoing research as we became aware of processes of value-infusion in hospitals that sought to integrate fragmented demands on patient care and climate change emerging from different parts of their institutional environment (Meyer & Rowan, 1977). On the one hand, hospitals were pressured by the Health Ministry and their Regional Health Authorities to advance and preserve their core imperatives of delivering affordable, high-quality and accessible patient care services. On the other, they were pressured by the Environment Ministry to reduce their energy consumption and mitigate their climate change impacts by upgrading equipment such as heating, ventilation and air conditioning (HVAC), optimizing building automation systems (BAS) and improving their building envelope. Additionally, the accreditation body that governs the manner that hospital facilities operate in Ontario was also incorporating energy conservation into its evaluation systems, causing hospitals to confront these demands in their organization.

Through prolonged engagement in the field, we came to understand how, in some cases, energy conservation concerns, which are peripheral to the technical requirements of hospitals, became integrated with their core imperatives centered on affordable, quality

and accessible patient care. However, the processes by which this integration occurred was differentially dispersed throughout each hospital, providing an opportunity to extend extant theory by examining the role of distributed organizational members in processes of institutional leadership.

Since our interests were in the process of how organizations integrate peripheral concerns, we used qualitative methods (Creswell, 1998). Qualitative methods are appropriate because our quest was to "make sense of, or interpret, phenomena in terms of the meanings people bring to them" (Denzin & Lincoln, 2011, p. 3). Moreover, the incorporation of energy conservation into hospital practices was a complex phenomenon in which the causal explanations were obscure (Elsbach & Kramer, 2003). Finally, since these practices evolved, qualitative methods allowed us to clarify not only event sequences but also to disentangle overlapping causal forces (Greenwood & Suddaby, 2006, p. 31). We adopted an inductive approach because our purpose is to build and elaborate theory (Strauss & Corbin, 1990) in the area of distributed processes of value-infusion in organizations and to extend existing theory by making it "more dense by filling in what has been left out—that is by extending and refining its existing categories and relationships" (Locke, 2001, p. 103).

Based upon principles of "naturalistic inquiry" (Greenwood & Suddaby, 2006; Lincoln & Guba, 1985), our research design emerged through various segments of data collection and analysis; new insights provided additional directions for subsequent stages of our study. Throughout these segments, we established trustworthiness (Lincoln & Guba, 1985) by frequently consulting and debriefing with peers and field members in multiple ways in order to develop and confirm themes and categories, and establish directions for subsequent stages (Figure 1).

Member check measures enabled the ongoing testing of emerging ideas, models and theories through debriefing with field members such as hospital senior management and energy conservation staff, and representatives from the Environment and Health Ministries. Peer review measures informed the methodological approach and interpretations of data including through participating in conferences and meetings with

scholars, and obtaining frequent feedback from academic subject matter and methodological experts. Triangulation measures ensured the validity of information across different sources of data and methods, including interviews, archival data analysis, observations and surveys. These various procedures helped validate inferences drawn from data to ensure that our account "represents participants' realities of the social phenomena and is credible to them (Creswell & Miller, 2000, pp. 24-25)."

2.3.1 Sources of data

2.3.1.1 Documents on energy conservation and patient care

We collected a total of 80 documents on energy conservation and patient care pressures facing hospitals in Ontario. This included 37 policy and strategy documents (1548 pages) from the Health, Environment and Finance Ministries as well as health sector associations were reviewed to understand health sector greening programs, the regulatory environment and related government priorities surrounding health care, energy, the economy and the environment in Ontario. It additionally included 43 scholarly articles and technical documentation (817 pages) on energy efficiency infrastructure investments in hospitals to identify how hospitals may be addressing the tensions between energy conservation and patient care.

2.3.1.2 Semi-structured interviews

Fourteen hospitals were selected from a stratified random sample representative of size and geographic characteristics (rural and urban) of the population. Semi-structured interviews were undertaken with 17 energy conservation leads in these hospitals. Informants were asked to describe structures and processes for the evaluation, adoption and implementation of energy conservation projects in their hospital, with particular attention to enabling and constraining factors. Interviews were open-ended to explore processes, participant rationales and meanings associated with energy conservation. Informant bias was mitigated by: providing assurances of confidentiality to motivate accuracy, using interview guides that focused informants on objective events, behaviours and facts; and; triangulation with secondary data gathered on-site or through the media (Golden, 1992; Miller, Cardinal, and Glick, 1997). Most interviews were recorded and

transcribed and some relied on handwritten notes, resulting in a total of 60 typed transcript pages.

2.3.1.3 Energy audits and Conservation and Demand Management (CDM) plans

Energy audits data were obtained from two non-profit healthcare sector organizations involved in hospital greening–Healthcare Energy Leaders Ontario (HELO) and Ontario Hospital Association (OHA)–detailing specific opportunities (potential projects) for energy conservation at a facility level throughout the population of Ontario hospitals. This dataset included variables such as potential projects to improve energy efficiency, the estimated cost of energy conservation projects to address these opportunities, expected improvements in energy efficiency associated with these projects, and associated annual energy cost savings. It covered a total of 500 opportunities for energy conservation across 73 Ontario hospitals, at a total estimated cost of CA$ 179 million.

This dataset was supplemented with cross-reference to information on three important aspects included in Ontario hospitals' CDM plans: 1) description of their values and purposes pertaining to energy conservation; 2) description of their structures and processes for the evaluation, adoption and implementation of energy conservation in their facility; and, 3) their commitments to further energy conservation through the implementation of specific future energy conservation projects. A total of 93 hospitals were included in the combined database of energy audits and CDM plans.

2.3.1.4 Participant observations

Data were also collected through participation in 12 private events from three different multi-stakeholder initiatives. First, in partnership with a non-profit hospital greening coalition, the second author co-organized and participated in an advisory committee designed to explore how financial and clinical priorities affect energy conservation in Ontario hospitals. The advisory committee meetings deepened insight of energy use and conservation practices in Ontario hospitals, and varying perspectives on the integration of energy conservation with clinical and financial goals. Second, in

partnership with a membership organization of facility managers and building owners responsible for the operation of commercial and public buildings, the second author co-organized and participated in a private roundtable designed to share failures, successes and best-practices in energy conservation among leading hospitals. The roundtable provided further insights into the organizational and behavioural opportunities contributing to leadership in energy conservation in Ontario hospitals. Third, the second author co-organized and participated in an advisory committee with the Environment Ministry's climate change director and policy advisors as well as Ontario hospital staff to address possible policy solutions for alleviating financial barriers to energy conservation in Ontario hospitals. These advisory committee meetings provided insight into relationships between the external mandate for energy conservation and internal organizational dynamics of hospitals.

Some of these observations were recorded and transcribed but most relied on handwritten notes, resulting in 140 typed transcript pages. Through participant observations, data were collected from over 62 participants including hospital senior management (12) and energy conservation staff (10), energy consultants (6), energy providers (7), equipment vendors (2), building specialists (7), energy financiers (1), representatives from Environment and Health Ministries (6), staff from non-governmental organizations (8) and academics (3).

2.3.2 Naturalistic inquiry segments

As per the methodology of "naturalistic inquiry" (Lincoln & Guba, 1985), we employed a constant comparative approach wherein data collection and analysis was iterative and ongoing. Because data collection and analytical processes were entangled and evolved in a ongoing fashion, it would be misleading to portray them as separate and neatly ordered components that were pre-arranged at the onset of our study. The entire inquiry consisted of three consecutive segments of data collection and analysis.

In the first segment we mapped energy conservation and patient care pressures facing hospitals in Ontario to construct an appropriate research approach for our study. This segment drew from tacit knowledge (Lincoln & Guba, 1985) from a previous

inquiry on the barriers and facilitators of energy conservation in public sector organizations (universities and municipalities) in Ontario as they responded to the Green Energy Act (2009). We extensively reviewed documents on energy conservation and patient care to grasp the fundamental challenges posed by the external mandate for energy conservation. This review was complemented by consultations with academics and field participants to provide 'peer review' and 'member checks' on our interpretation of data (Lincoln & Guba, 1985). It culminated with the development of strategies for data collection and analysis for the subsequent inquiry segment.

In the second segment we explored structures and processes in hospitals and how they enable and constrain energy conservation using semi-structured interviews with key hospital informants and archival data analysis of energy audits and hospitals' CDM plans. We purposively sampled (Lincoln & Guba, 1985) the informants for the semi-structured interviews, and used the archival database of energy audits and hospitals' CDM plans as a source of supplementary triangulation of case findings from interviews. Categories and themes from this segment were established with the input of further 'peer review' and 'member checks' to confirm the validity of insights emerging from the data, and were further ascertained in the following segment.

In the third segment, we used participant observations in multi-stakeholder initiatives to refine categories and themes from previous segments and identify processes of value-infusion. Data obtained at this stage suggested that key aspects differentiating leading hospitals was the extent of green value-infusion into organizational structures and processes and the importance of distributed leaders taking an active role in this process. Analysis of data from interviews and participant observations proceeded inductively using axial and theoretical coding. This involved the use of matrix cross classifications pertaining to the frequency of codes along case attributes, and the use of a data organization scheme (or "paradigm") to identify relationships between structural conditions, actions or responses to structural conditions, and the consequences or outcomes of those actions or responses (Corbin & Strauss, 2015).

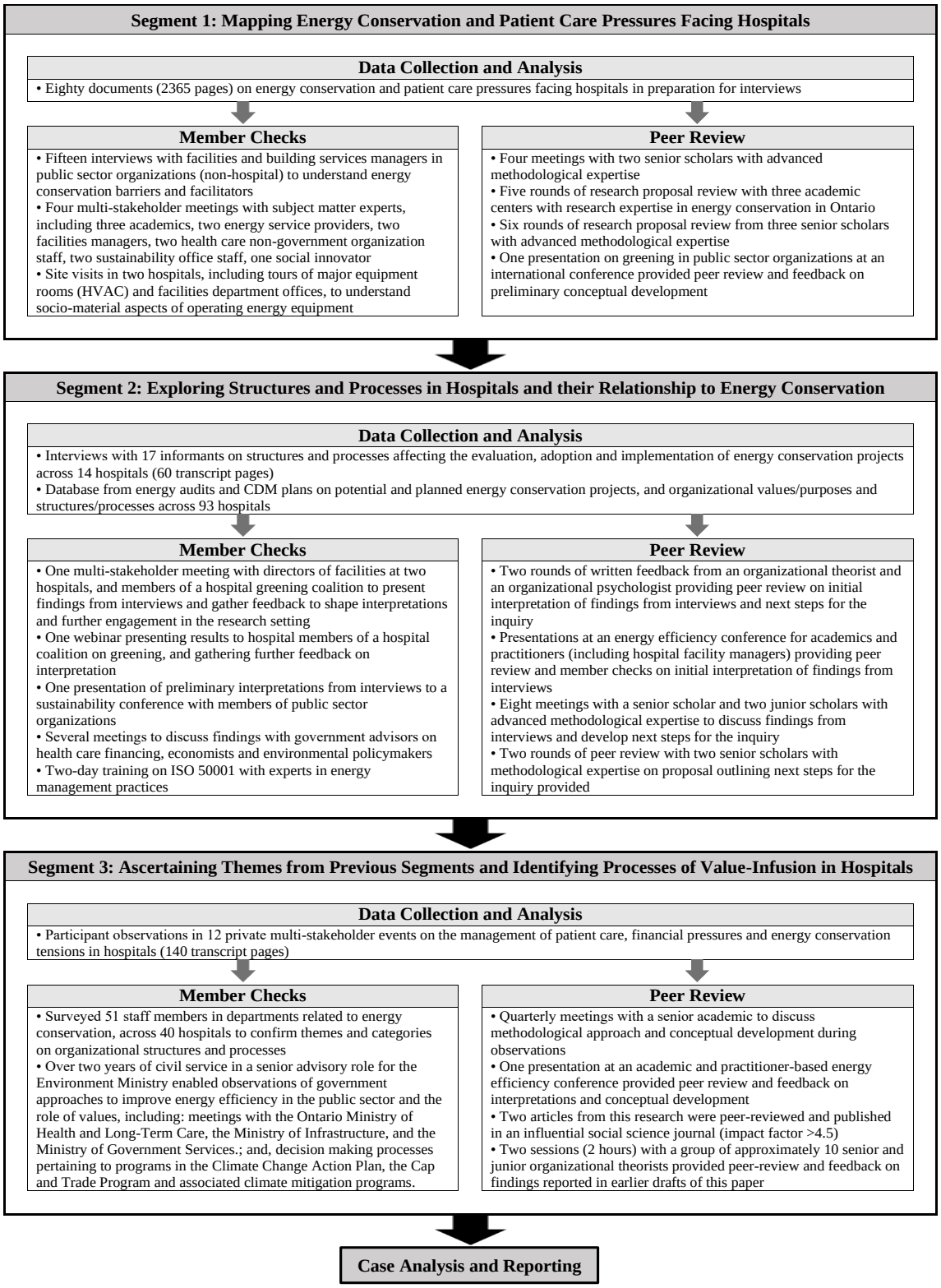

Figure 1: Naturalistic inquiry segments

The insights uncovered during the second and third inquiry segments provided the impetus for the final stage of the inquiry aimed at reporting case findings (Lincoln & Guba, 1985). More specifically, they allowed us to identify how different hospitals addressed the tensions between energy conservation and patient care through their values and purposes, and structures and processes. As we describe below, we identified organizational archetypes (Greenwood & Hinings, 1993) and used Latwrence and Suddaby's typology of institutional work to analyze and report case findings.

2.3.3 Case analysis

In the final stage of our study, we analyzed 16 hospitals, including all 14 hospitals interviewed, and two additional hospitals added by way of participant observations. We used inductive methods to draw historical comparison between cases using multiple sources of data (Creswell, 1998). The multiple sources of interview, observational and archival data enabled us to use a collective case study design to identify groupings of similar and dissimilar cases along salient attributes (Stake, 1995). We used a replication logic to identify whether conceptual insights emerging from the comparison of the 16 hospitals were either confirmed or disconfirmed at the level of case groupings (Eisenhardt & Graebner, 2007). Such an approach typically allows greater generalizability and better grounding than theory from few or single sites. It is also apt at generating high-level theoretical development that is amenable to extension and validation with other methods (Davis, Eisenhardt, & Bingham, 2007).

The analysis classified the 16 hospitals within conceptually similar case groupings of "organizational archetypes" (Greenwood & Hinings, 1993), which differed by the nature of their values and purposes, structures and processes, and their energy conservation practices. Stated differently, cases differed in the extent to which energy conservation values were infused into their organization. To understand underlying processes of value-infusion, we focused on hospitals with an intermediate-or high-level of value-infusion. Our analyses found that variations in value-infusion were as a result of the different approaches to institutional work (Lawrence & Suddaby, 2006). We describe the analyses with respect to organizational archetypes and institutional work, below.

2.3.3.1 Organizational archetypes

An archetype is a "set of structures and systems that reflects a single interpretive scheme" (Greenwood & Hinings, 1993, p. 1052). Archetypes offer "some form of classification. The idea of coherence between the elements of organizational arrangements is central to typologizing, and the classification of organizations is made according to differences and similarities in overall patterns" (Greenwood & Hinings, 1993, p. 1054). Our analysis, in accordance with the existing literature on institutional leadership, focused on two aspects to the organizational patterns we observed: 1) values and purpose, and 2) structures and processes. These represent the most important aspects of how hospitals navigate organizational change in responses to the pluralistic demands of their institutional environment.

Organizational values and purposes serve as guiding principles designed to maintain the integrity of an organization as it adjudicates between normative beliefs about things "worth having, doing and being" (Selznick, 1992, p. 60) among organizational members and particular communities in which an organization is embedded. Given the inherent tensions between energy conservation and patient care, values and purposes are an important component of hospitals' responses to the external mandates of the Environmental Ministry and accreditation agency (Selznick, 1992). An organization's structures and processes are receptacles of its values and purposes and (ideally) support, rather than undermine, them. They involve both formal and informal elements that include the nature and permeation of hierarchy, power dependencies, internal interest groups and routines that support decision-making (Besharov & Khurana, 2015). Given divergences in interests within pluralistic organizations, structures and processes are critical aspects determining the extensiveness of the evaluation, adoption and implementation of energy conservation projects within hospitals (Selznick, 1992).

We used data from interviews, participant observations and analysis of the archival database of energy audits and information from CDM plans to uncover and categorize cases within organizational archetypes. Not all hospitals conformed neatly to each archetype. However, each archetype "represents a unique combination of the organizational attributes that are believed to determine the relevant outcome(s)" (Doty &

Glick, 1994). As Fiss (2011) notes, this form of theory development has the benefit of focusing on discrete and specified outcomes as well as enabling the elaboration of the complex relationships among elements that result in these outcomes.

2.3.3.2 Institutional work

In order to explain distributed processes of institutional leadership involved in the development of the archetypal organizational patterns observed, we used Lawrence and Suddaby's (2006) typology of institutional work. This typology served as an analytic device for coding the creation, maintenance and disruption of value-systems for greening patient care in hospitals where green value-infusion processes had been initiated. Our interests were in elaborating the process through which organizations infuse peripheral values within their core operations. In so doing, we followed Kraatz's (2009) suggestion to conceive of leadership mechanisms as processes of institutional work such as to "build a bridge" between Selznick's perspective on organizational institutions and leadership from the perspective of neo-institutional theorists.

To use Sezlnick's (1957, p. 17) oft-quoted phrase, "[t]o institutionalize is to infuse with value beyond the technical requirements of the task at hand." The process of infusing values in (or "institutionalizing") an organization is one that emerges as a product of a series of adaptations and compromises that leaders make as they uphold the integrity of their organization. As Selznick (1957, pp. 16-17) adds, it is a process that "happens to an organization over time, reflecting the organization's own distinctive history, the people who have been in it, the groups it embodies and the vested interests they have created, and the way it has adapted to its environment." Thus, using institutional work as an analytical device allows us to examine how organizations evolve through their leaders' ongoing, purposeful efforts to defend and steward their organization amidst shifting environmental demands (e.g. Currie, Lockett, Finn, Martin, & Wairing, 2012; Rojas, 2010; Wright, Zammuto, & Liesch, 2017).

Institutional work is defined by "purposive action aimed at creating, maintaining, and disrupting institutions (Lawrence & Suddaby, 2006, p. 217)". These three categories of institutional work reflect the life-cycle of institutions as described by scholars (Scott,

2001; Tolbert & Zucker, 1996). They are respectively concerned with the following: 1) how institutions arise through the contribution of new rules and understandings; 2) how they are sustained through the development of supporting structures; and, 3) how they are displaced and fall into disuse as new institutions are favoured over pre-existing ones.

Our analytical framework links the three categories of institutional work to the aspects of the organizational patterns we observed in the analysis of organizational archetypes. First, it links creation work to the development of organizational values and purposes pertaining to energy conservation. Second, it links maintenance work to the building of organizational structures and processes in support of energy conservation. Finally, it links disruption work to processes used to displace pre-existing value-systems pertaining to patient care in favour of their integration with energy conservation. We used data from interviews, participant observations and information from CDM plans to uncover these three processes of green value-infusion in the organizational archetypes.

2.4 Findings

In this section, we describe how hospitals responded to the external mandate to integrate energy conservation initiatives into their organizational practices. First, we introduce the dominant organizational archetype by describing how most hospitals tended to approach energy conservation. We then focus on a divergent archetype that emerged through our analysis and elaborate a process theory for how these latter hospitals became institutionally-oriented (Selznick, 1957) toward energy conservation whereas other hospitals did not.

2.4.1 The energy conservation mandate and its implications for Ontario hospitals

With the provincial government's introduction of the Green Energy Act in 2009, Ontario hospitals were put under increasing pressure to address climate mitigation and energy conservation. Starting in 2014, an associated regulation required Ontario hospitals to publish energy Conservation and Demand Management (CDM) plans and mandated greater transparency surrounding their energy use, greenhouse gas emissions and planned activities for reducing their energy use and greenhouse gas emissions. Further, energy

conservation was becoming an important component of accreditation systems, which caused Ontario hospitals to consider whether and how they ought to alter their operations (Vermeulen, Zietsma, Greenwood, & Langley, 2016).

Ontario hospitals had historically underinvested in energy conservation for two main reasons. First, the nature of their services required hospitals to operate around-the-clock under specialized requirements for clean air, disease control, imaging equipment and waste management (Kolokotsa, Tsoutsos, & Papantoniou, 2012). This discouraged hospitals from investing in novel technologies such as energy efficient heating, ventilation and air conditioning (HVAC) and building automation systems (BAS) which could disrupt clinical operations and threaten their ability to deliver on their core purpose of providing affordable, high-quality and accessible patient care. Second, the funding model for hospitals made such investments unlikely. Ontario hospitals were funded through fixed global annual budgets from the provincial government, and the rate at which these annual budgets were increasing was lower than escalations in the costs of running the hospital. This left minimal funds available for energy conservation projects.

Additionally, energy conservation projects could create important conflicts between departments in hospitals and put the facilities and buildings department into a squeeze. For example, a facilities manager explained that, during their annual evaluation, their superiors would criticize energy conservation efforts, essentially saying "Let's see, people complained about being hot in the summer and cold in the winter. You're doing a good job conserving energy." At any point a powerful individual could complain and say "I don't care [about energy conservation], you're going to make sure that I've got, you know, 20 degrees in my office here at this time.” Senior administrators such as CEOs might get a lot of negative feedback associated with energy conservation, which could lead to frustrations. Front-line workers would complain about "Oh, it's too dark over here at night, and now it's a security issue.” In most hospitals, facilities managers were “…constantly getting these little nudges from people saying ‘we would like you to stop doing that’."

In trying to understand how hospitals confronted fragmented demands for energy conservation, our analyses revealed different archetypes that informed how the hospitals approached the task. We label these archetypes Dominant and Green. Each archetype shaped how hospitals approached energy conservation. Specifically, the different archetypes related to whether or not energy conservation became integrated with core imperatives of a hospital. Therefore, to organize our discussion of these two archetypes, we focus on the two organizational patterns we observed–values and purposes, and structures and processes–and also on their energy conservation practices. The two archetypes articulate how hospitals approached energy conservation differently depending on the degree to which greening was incorporated into their values, purposes, structures and processes (Table 3). At one end of the continuum, the Dominant archetype kept energy conservation at the periphery of their organization, whereas, at the other end of the continuum, the Green archetype incorporated energy conservation into the organization's provision of high-quality and affordable patient care. Table 5 in the Appendix presents a more elaborate breakdown of case findings.

Table 3: Two organizational archetypes and their energy conservation practices

	Dominant archetype hospital	**Green archetype hospital**
Values and purposes	• No green vision • Compliance with minimal legal requirements	• Green vision establishes the importance of energy conservation in relation to patient care • Substantial elaboration of the implications of greening for the roles and responsibilities of various departments
Structures and processes	• Hierarchical structures and processes • Facilities department is strictly evaluated and accountable	• Green committees have significant authority and autonomy • Frequent collaboration in evaluation, adoption and implementation of energy conservation
Energy conservation practices	• Few, incremental projects with short-term paybacks	• More complex projects with long-term paybacks

2.4.2 The Dominant archetype

2.4.2.1 Instrumental values and purposes

Offering only an instrumental purpose to energy conservation, Dominant archetype hospitals did not have clear vision for energy conservation, indicating that their response to pressures for climate mitigation was motivated by compliance to the Green Energy Act. Energy conservation was valued primarily to the extent that it offered short-term cost savings and did not impact the provision of patient services. (See Table 5.)

Concerns about short-term costs savings were reflected in their CDM plans. For instance, a Dominant archetype hospital's CDM plan stated: "Green has always been seen as a good thing to do but never considered part of our overall corporate strategy. As such we have not put a significant amount of resources into Greening [our hospital] nor have we retained the financial savings achieved from Green energy initiatives for future Green projects." In Dominant archetype hospitals, the overriding purpose of energy conservation was to meet short-term targets for balancing their budget year after year. Yet, the large capital investment required to realize these savings made energy conservation projects unattractive to these hospitals.

Dominant archetype hospitals understood energy conservation to adversely affect patient services. This understanding tended to take one of two forms. In the first, there was a sense that for every dollar invested in energy conservation there was a dollar less for projects associated with immediate and direct improvements in patient services. If funneling funds towards energy conservation projects could imply that needed investments in equipment such as CT or MRI scanners might not occur, then energy conservation projects must be rejected:

> *"So when you get to a green project, which always ends up in a 'C' [priority category], which is of least priority because it's not of critical concern to the next year's operation you have to really be able to justify a good payment for people to open their eyes up, and say 'you know what I am going to give you x amount of dollars and not then do something clinical'."*

In the second, energy conservation was perceived as being disruptive to patient services and thus having a negative impact on the access to care. For example, installing energy conservation equipment such as HVAC systems can necessitate the temporary closure of operating rooms and restrict access for surgeries either because construction activities take place in these locations or because disruptions in the airflow of HVAC systems can have wider ranging impacts such as increasing the transmission of infections. Overall, there was a sense that energy conservation was in conflict with patient care.

2.4.2.2 Hierarchical structures and processes

Top management within Dominant archetype hospitals maintained tight control surrounding the evaluation, adoption, and implementation decisions of energy conservation projects. Since energy conservation was primarily valued in terms of short-term cost savings, the measures by which energy conservation projects were evaluated were financial ones. Teams from the facilities and building services department had to present and "sell" potential energy conservation projects to senior management and the board of directors, who evaluated projects in terms of maximizing potential cash flows from projects and meeting annual benchmarks for a balanced budget (Maiorano, 2018). As a result, the finance and capital budgeting departments were heavily involved, while operational and clinical departments were largely absent from discussions except to prevent the encroachment of energy conservation projects on patient services.

The role of various departments was to inform these decisions by providing the technical advice of their administrative function. Before any energy conservation project could be accepted, capital budgeting teams required that the facilities and building services departments provide tangible assurances pertaining to energy and cost savings so as to avoid any risks of negative impacts on short-term financial goals. Senior management expected that facilities managers would provide assurances based on "the use of good data" and "mathematical formulas". In this manner, building services departments were made accountable for ensuring that energy conservation projects achieved their desired energy and cost savings after their implementation (Maiorano, 2018). Because energy conservation projects can involve significant operational disruptions, execution risks and uncertainty in their payback, this cultural climate created

risk-avoidance among the facilities and building services departments (Maiorano, 2018). As one informant noted:

> *"It's a catch 22 for me, do I want to do the project and lose the money? It is a risk… If my bottom line is in the red, that's a reflection of me; I have to find a way to balance my budget."*

In sum, the concern for energy conservation not adversely affecting patient care was narrowly inculcated in structures and processes within Dominant archetype hospitals. Consequently, these hospitals enabled each group to focus on their own interests with respect to energy conservation, exacerbating the perceived tensions between energy conservation and patient care demands.

2.4.2.3 Minimal energy conservation practices

Dominant archetype hospitals implemented only a small number of incremental energy conservation projects that provided short-term financial paybacks. Long-term and complex energy conservation projects that might otherwise have been valuable to their hospital were overlooked. Yet, it is notable that many of these hospitals were still engaged in a high level of community and staff engagement in symbolic green initiatives such as carpooling, Earth Day celebrations, staff recycling recognition awards, electronic waste recycling, community partnerships with energy and healthcare greening organizations, and green awards recognitions by third parties. (See Table 5.)

In summary, the Dominant archetype represents hospitals which kept energy conservation at the periphery of their organization by their exclusion of energy conservation in their values and purposes, and their reliance on hierarchical structures and processes during the evaluation, adoption and implementation of potential energy conservation projects. Their structures and processes prioritized patient care objectives (Besharov & Smith, 2014) and reduced opportunities for integration. Thus, Dominant archetype hospitals were, in Selznick's (1957) terms, administratively-oriented, functioning within a relatively narrow technical bandwidth, formal administrative structures, and clear and fixed goals. The effect was to keep energy conservation and climate mitigation at the periphery.

2.4.3 The Green archetype

2.4.3.1 Green values and purposes

Embracing energy conservation as one of its' central purposes, Green archetype hospitals' vision formally acknowledged energy conservation as being integral to affordable, quality and accessible patient care over the long-term. These hospitals were committed to incorporating greening into strategic and operational activities of their organization. This was explicitly stated in their CDM plans, e.g.:

> *"[Our hospital's] mission is to improve the health of the community we serve. In recognition of the critical linkages between environmental health and public health, it is [our hospital's] desire to limit adverse impacts upon the environment resulting from the siting, design, construction and operation of our health care facilities. We will address the life cycle impacts of facilities through design and construction standards, selection of materials and equipment, and maintenance practices. As a recognized leader in health care services [our hospital] is committed to extending that leadership to responsible environmental impact management. We will operate our facility efficiently with a goal of always looking to the horizon towards improvement and conservation."*

Another Green archetype hospital's CDM plan stated:

> *"In keeping with our core values of system efficiency and financial responsibility, [our hospital's] energy management program will aim to reduce operating costs while enabling us to provide excellent and compassionate service to a greater number of persons in the community… Our organization will strive to fully integrate energy management into our practices by considering indoor environmental quality, operational efficiency, and sustainably sourced resources into major financial decision-making."*

In contrast to Dominant archetype hospitals, which emphasized the tensions between short-term financial and clinical objectives, Green archetype hospitals promoted a long-term and integrated vision for patient care and energy conservation. Green archetype hospitals tended to adopt a life cycle costing approach as a means to take into consideration the reliability of new equipment, their systemic impact on operations as a whole, and the long-term resiliency of the infrastructure that supports patient care

delivery. “All levels of the organization, operating, are able to factor the lifecycle costs.” Further, these hospitals aimed to achieve organizational excellence in and through greening. A long-term green vision allowed these hospitals to bring into focus the ways in which energy conservation can help them deliver patient care in a more resilient or sustainable manner. These hospitals developed elaborate roles and responsibilities for the participation of its various departments in this greening process. (See Table 5.)

2.4.3.2 Supportive structures and processes

In Green archetype hospitals, dedicated “green committees” (Strashok, Dale, Herbert, & Foon, 2010) were put in place to enable the collective evaluation, adoption and implementation of potential energy conservation projects through the sharing of resources, responsibilities, benefits and risks involved in greening. Because Green archetype hospitals saw energy conservation as integral to their mission to provide affordable, quality and accessible patient care, membership of these committees included people from a wide variety of departments. These green committees met often to address problems and solutions pertaining to various energy conservation matters. (See Table 5.)

By bridging departmental silos through these committees, Green archetype hospitals generated a greater understanding of the different needs and resources of various departments, and of possibilities for managing a balanced budget while assessing problems, opportunities and solutions (Cohen, March, & Olsen, 1972) for energy conservation. In particular, the green committees allowed for actors from low-power departments such as facilities and building services to be important parts of the process. The green committees also favoured greater involvement of administrators in operational and clinical departments who were more likely to consider the strategic and systemic benefits of energy conservation projects, and prevented teams in finance and capital budgeting departments from dominating the evaluation, adoption and implementation process.

Through the green committees, various internal stakeholders were enabled to find common ground and built trust across departments to facilitate the buy-in of senior management to recommendations for the financing of energy conservation projects.

While senior management within Green archetype hospitals were committed to energy conservation, they relinquished control over the evaluation, adoption and implementation of potential energy conservation projects in favour of broad participation from across the organization.

2.4.3.3 Integrated energy conservation practices

Green archetype hospitals implemented a larger number of complex energy conservation projects with long-term paybacks (Table 5), achieving synergies with high-quality patient care. They also committed to changing the energy use behaviour of their personnel by improving the workplace culture around energy conservation. Over time, the effects of the Green Energy Act increased energy prices significantly for all Ontario hospitals and Green archetype hospitals experienced energy cost savings, which could be reinvested into patient care through facilities replacement or offsetting deficits.

Complex energy conservation projects, such as those affecting operating rooms, had a greater disruptive impact on patient services over the short-term. However, once implemented, these projects benefited patient care directly. State-of-the-art HVAC systems improved air circulation, humidity control and air quality, reducing the likelihood of hospital-acquired infection. The comfort level of patients and staff was ameliorated through building retrofits like energy efficient lighting, more precise and consistent airflow, and insulation upgrades. Over the long-term, Green archetype hospitals also garnered reputational benefits through energy conservation awards and recognitions from the accreditation body, government ministries and the broader community. These various benefits likely helped them recruit staff, attract patients, and increase access to care by facilitating the expansion of clinical services.

In summary, the Green archetype represents hospitals that were green values-centered and patterned by a social order that was defined by shared norms and purposes for greening patient care. Green archetype hospitals devolved power and autonomy to dedicated committees to operate with minimal oversight from senior management. Consequently, evaluation, adoption and implementation of potential energy conservation projects proceeded more collectively (Gronn, 2002), with top management support,

instead of proceeding through strict presentation and “selling” processes that were the norm in the Dominant archetype. Green archetype hospitals were, in Selznick’s (1957) terms, institutionally oriented toward energy conservation. This orientation enabled actors from different levels and functions to act beyond their strict roles and assume an ideological, creative and collectivist stance toward greening (Raffaelli & Glynn, 2015). The effect was to allow synergistic and long-term solutions to problems facing their organization.

2.4.4 Value-infusion processes in the Green archetype

In this section, we describe how, in contrast to Dominant archetype hospitals, Green archetype hospitals achieved greater integration of energy conservation and patient care through the infusion of green values. We focus on how the Green archetype emerged, emphasizing the institutional work (Lawrence & Suddaby 2006) that these hospitals undertook to integrate greening into their organizational processes. In these hospitals, actors distributed through various organizational functions and levels used various sub-processes of institutional work to create, maintain and disrupt the value-systems that make the greening of patient care possible. These processes of value-infusion allowed Green archetype hospitals to become institutionally-oriented (Selznick, 1957) over time. We present both the mechanisms involved in these processes of value-infusion and the manner in which they contributed to the evolution of the Green archetype.

We elaborate how the creation, maintenance and disruption of value-systems were distinct and sequential aspects of institutional work, each of them being necessary and insufficient conditions on their own, but collectively sufficient for integration. Some hospitals engaged in some aspects of institutional work, and were at an intermediate stage of value-infusion (Table 5). However, only Green archetype hospitals engaged in all three. Because the historical imprinting of hospitals (Stinchcombe, 1965; Waeger & Weber, 2019) had excluded energy conservation, the disruption of pre-existing value-systems is required for the creation and maintenance of energy conservation value-systems to proceed to a full extent.

2.4.4.1 Creating energy conservation value-systems

In Green archetype hospitals, distributed actors sought to create value-systems for energy conservation by building support from top managers and other stakeholders, and driving the development and elaboration of their hospitals' values and purposes as pertaining to energy conservation. Actors throughout Green archetype hospitals created these value-systems by developing and elaborating values and purposes for greening through three sub-processes of institutional work (Lawrence & Suddaby 2006): 1) *advocacy work*, which involves the mobilization of political support; 2) *theorizing work*. which involves the development of abstract categories and chains of cause and effect; and, 3) *defining work*, which involves the construction of systems of rules that confer status and identity or define boundaries of membership and status hierarchies. This institutional work enabled Green archetype hospitals to develop a green vision for their organization and elaborate its implications for the roles and responsibilities of various departments in response to the external mandate for energy conservation and climate mitigation.

Initially, pressures from the Environment Ministry and accreditation bodies provided sources of legitimacy for the importance of the facilities and building services department in greening patient care. Since, as per legislation, senior leaders and the board of directors had to be involved in signing-off on their organization's energy conservation commitments, facility managers used the opportunity to promote energy conservation. Over the course of time, facility managers were able to demonstrate the value of greening by highlighting the benefits of energy conservation. As one informant commented:

> *"The most valuable part of that [Green Energy Act] was – because to do the plan you, had to get corporate buy-in – was the fact that they gave us a chance to actually sit there and do the presentation to the CEO… We ended up going to the Board room sitting in front of them all with 'Hey, here's what we need to do. Here's what the legislation's telling us we have to do, but this also makes good sense for us here going forward.'"*

Through *advocacy work*, actors also sought to mobilize support for greening within lower levels of the organization by utilizing deliberate techniques to demonstrate how greening could allow various departments and the organization as a whole to obtain

legitimacy. This involved deliberate engagement with departments to instill a bottom-up approach to greening rather than one that relies on obtaining executive buy-in. As one informant remarked, "…if we just rely on executive buy-in we're going to be waiting a long, long, time for the culture to change". By making it clear to each of the individual departments how greening patient care was in their best interest, it provided the conditions for distributed leaders to assemble within local social orders (Fligstein, 2001) outside of the formal administrative structures common to Dominant archetype hospitals.

Consequently, facility managers collaborated with other departments to develop and elaborate a green vision for their organization. Through *theorizing work* and *defining work*, they created a locally appropriate definition for greening patient care, which clarified the roles and responsibilities of various departments in greening, enabling further collaboration. Through *theorizing work*, diffuse actors sought to develop a local definition for greening that brought greater specificity to its meaning within the context of their organization. As one informant remarked, the terms 'sustainability' and 'greening' are so ambiguous that they ought to be "thrown out the window" and replaced with concepts that have more clear and direct implications for the organization. Prior to crafting the new concepts and definitions, actors used open-ended conversations with management staff and energy conservation champions, evaluated their current organizational culture, and reviewed the contents of regulations to inform what their organization's definition for greening should be. This new definition then facilitated the communication of the concept among various departments and made it easier to grasp what the implications of and incentives for greening were for the entire organization in terms of the causes and effects of greening patient care. The resulting development of a green vision allowed the hospital to proceed to an intermediate stage of value-infusion.

Over time, as a hospital benefited from the public recognition related to successful energy conservation and climate mitigation projects, facility managers were empowered to build even greater internal support for greening. In Green archetype hospitals, facility managers used these opportunities to their advantage by advocating for both greater resources being directed to the facilities and building services department and an increase in power within the organization. As one informant noted:

> *"We just received an energy award from Horizon, an energy champion award for a project we did retrofitting a parking structure. But they invited us and one of our VPs came up for it. I mean, it was almost like we'd gone out. I mean, it was a relatively small project, like relative to the other things we were trying to accomplish. It was, for me, minor. But with her going up and getting the award, we had a brag-fest trying to do that end of it. I mean, she sat and paraded that award through boardroom, CEO, all this kind of stuff. And I can tell you now anything I turn around and suggest, all of a sudden, she jumps on it."*

With greater internal support and a track-record of success, distributed actors were then empowered to use *defining work* to construct and communicate the systems of rules and incentives for furthering the integration of energy conservation and patient care in practice, by clarifying how greening related to the day-to-day activities of various departments. This helped create a common understanding of the boundaries of membership in the greening process. As one informant commented: "…understanding engineer speak, as they say, and the doctoral speak or medical speak, and trying to create a line of communication that works for everybody is crucial." Additionally, a clinician will be more likely to comply "when a [clinician] knows when she turns off that light, that might save three jobs at the end of the year". This work involved communicating not only the incentives such as to motivate staff members to pursue energy conservation goals, but also technical education pertaining to the use of equipment in order to ensure their effective implementation in daily practice. As one informant commented:

> *"… if you are going to implement education and training, that's great to focus on your track units and chillers and boilers and BAS systems and whatnot. But you need to take that a step further and educate and train on not only the technical aspects of your building automation, but also how those technical aspects and how the everyday actions about the greater staff, have an effect on patient care and what you're doing at the end of the day."*

This work then allowed the elaboration of green values and purposes into frameworks that clarified how energy conservation applied to the roles and responsibilities of various departments. This elaboration was necessary to overcome real and perceived tensions between patient care and energy conservation.

2.4.4.2 Maintaining energy conservation value-systems

In Green archetype hospitals, distributed actors sought to maintain value-systems for greening by building structures and processes in support of energy conservation. Whereas Dominant archetype hospitals relied on hierarchical structures and processes that emphasized technical requirements pertaining to patient care, actors in Green archetype hospitals maintained value-systems for energy conservation by building green structures and processes through two sub-processes of institutional work (Lawrence & Suddaby, 2006): 1) *enabling work*, which involves the creation of rules that support institutions; and, 2) *embedding and routinizing work*, which involves infusing the normative foundations of institutions into participants' daily routines. This institutional work enabled the devolution of decision-making to Green committees and allowed distributed actors to evaluate, adopt and implement energy conservation projects collaboratively with greater autonomy and support from their top management.

Through *enabling work*, distributed leaders within Green archetype hospitals sought to create rules that facilitate and support energy conservation within their hospitals by creating "green committees" which helped to formalize new roles and processes needed to carry on institutional routines for greening. Green committees thus introduced a higher degree of certainty into institutional arrangements, which helped reduce political conflicts between departments. Because of the complexity of greening patient care, greening committees brought, as one informant remarked, "all the effects of strategic sustainability and enterprise management in totality, and that includes supply chain management, waste and chemical waste, looking at what products are coming and going out of the hospital and why." This provided a space where energy conservation was negotiated among members of various departments who together evaluated, adopted and implemented potential projects. These committees created the possibility of pooling resources and finding common ground among various departments in furthering the objective of greening patient services (Strashok, Dale, Herbert, & Foon, 2010).

The creation of green committees was necessary to achieve an intermediate stage of value-infusion, but in itself insufficient to attain the institutional orientation reflected by the Green archetype. In some hospitals, green committees were created but the

evaluation, adoption and implementation of energy conservation projects still relied on hierarchical structures. In these intermediate-stage hospitals, the role of green committees remained largely symbolic. In contrast, green committees in hospitals of the Green archetype attained a greater level of autonomy to act in a more collaborative manner, with greater authority to evaluate, adopt and implement energy conservations projects.

Further, actors in the hospitals that became Green used *embedding and routinizing work* to infuse energy conservation values into day-to-day routines and organizational practices. This involved putting into place platforms and policies for routinizing the regular sharing of information on the activities of various departments that may either negatively or positively impact energy conservation. Through routinizing information sharing, greening hospitals were able to increase transparency and accountability. As one informant remarked, "…the guy who's running the plant needs to use that data to make operational decisions, but at the same time the people in finance need to have that data to be able to make buying decisions for purchasing. The people in capital development need to know that when they're sitting here looking into design, what that operational impact is in the long term." Having the infrastructure in place and routinizing the sharing of information facilitated decision-making pertaining to greening patient care.

2.4.4.3 Disrupting patient care value-systems

In Green archetype hospitals, distributed actors sought to disrupt value-systems in favour of greening, driving change in their organization's practices to further the integration of energy conservation with patient care. During this process of value-infusion, Green archetype hospitals sought to disrupt pre-existing value-systems to incorporate new, greener ways of delivering affordable, quality and accessible patient care. Because the historical imprinting (Waeger & Weber, 2019) of hospitals had previously excluded greening, disruption work was needed to undermine mechanisms that encouraged members' compliance to the pre-established ways of delivering patient care. Whereas Dominant archetype hospitals exclusively focused on patient care at the detriment of energy conservation, this disruption process enabled the creation and maintenance of energy conservation values to proceed to their full extent.

In Green archetype hospitals, distributed actors disrupted the pre-existing value-systems for patient care to further organizational change by using two sub-processes (Lawrence & Suddaby 2006): 1) *disassociation work*, which involves disassociating pre-existing practices from their moral foundations as culturally appropriate; and, 2) *disconnecting work*, which involves disconnecting rewards and sanctions from pre-existing practices.

With green-infused structures and processes in place, individuals and groups from various departments were empowered to concertively evaluate, adopt and implement potential energy conservation projects, outside of the formal hierarchical structures common to Dominant archetype hospitals. These bottom-up efforts allowed "…grass roots efforts to change how people think about healthcare, how people think about the technology and the built environment around healthcare and how it relates to energy efficiency." This enabled actors to use *disassociation work* to disassociate pre-established practices or rules from their normative foundations, by redefining the appropriateness of certain practices relative to their cultural context.

For instance, because the evaluation, adoption and implementation of energy conservation projects proceeded concertively and conjointly in Green archetype hospitals, outside of formal hierarchical structures common to Grey and Intermediate hospitals, facility managers were able to negotiate with other departments to undermine historical biases which discounted the long-term paybacks of greening. This involved educating and persuading other departments as "to identify that managing the facility efficiently [in regard to energy consumption] is as important to patient care as the new equipment, the new CT scanners, the MRI cameras, and all those sorts of things". As one informant commented:

> *"I came from DI [Diagnostic Imaging] and we were always considered to be the capital hogs in the organization because our equipment was expensive, we were at the table every year asking for new things every year because it was a very rapidly evolving technology, diagnostic services. So the culture is, 'yes, we'll buy the equipment, we'll get the diagnosis done' and so on. I think there's some education involved so that we can let the entire organization understand that energy savings can be reintroduced into patient care, so that*

> *we're not decreasing programs and cancelling programs, you know, do the funding."*

Thus, from a financial perspective, long-term energy conservation projects were not perceived as competing with other programs in such areas as diagnostic imaging, but as projects which were complementary to patient care, and which would payback over the longer-term. While the long-term paybacks of diagnostic imaging equipment were deemed acceptable in all hospitals, only the institutionally-oriented Green archetype hospitals were willing to accept the long-term paybacks of energy conservation projects in their evaluation and adoption processes.

This disruption work allowed Green archetype hospital to further the creation of value-systems for greening patient care by elaborating frameworks to support to achievement of organizational excellence in and through energy conservation. By looking beyond achieving a balanced budget within the current fiscal year as in Dominant archetype hospitals, Green archetype hospitals' longer-term evaluation horizon allowed them consider initiatives that could facilitate not only energy conservation but also the delivery of resilient patient care. Green archetype hospitals incorporated energy conservation into frameworks such as a comprehensive business case, timelines outlining medium-to long-term aspirations for greening (up to 20 years), and the elaboration of policies detailing the significance of greening for workplace culture and behaviour within various operational areas (see Table 5). Thus, green values were incorporated into the roles of responsibilities of individuals and teams within various departments. These frameworks allowed various departments to overcome the real and perceived tensions between energy conservation and patient care priorities.

Additionally, in regard to implementation processes, *disassociation work* was needed to change the culture surrounding energy conservation. One informant described how culture change was achieved among frontline workers by challenging the moral foundations of pre-established practices for heating and cooling the building. Frontline workers used to be able to call into the boiler room to request changing room temperature settings, and facilities and building services departments wanted to be perceived as "providing good service to our clients", so they would oblige these requests. However, a

communication plan was developed to instill new practices for frontline workers, essentially telling the staff "Look it. This is the temperature set we're going to use, plus or minus two degrees, bring a sweater, do what you need to do, but we need to manage this facility more efficiently." Thus, energy conservation became the normative standard for temperature control, rather than the whims of staff members.

Finally, through *disconnecting work*, actors sought to connect or disconnect rewards and sanctions associated with some sets of activities, with the goal of encouraging the practice of greening. This involved coercive mechanisms that brought negative attention to individuals and groups that transgress the newly agreed upon way that greening should be practiced, while bringing positive attention to those who are compliant with greening so as to build an organizational culture that integrates patient care and energy conservation in day-to-day operations. This could include installing screen savers that reminded personnel to turn off their computer equipment when not in use or putting red balloons on the chairs of people who left their equipment on. Thus, this work reshaped incentives and challenged pre-established ways of delivering patient care.

This type of culture change often required the championing of energy conservation in order to educate and persuade staff from various departments to abide by guidelines for regulating the use of electricity, BAS, and HVAC systems such as to ensure their effective implementation into daily practices. As one informant commented: "So you need to figure out who your champion is. They have to be personable, they have to know their stuff and they have to be out there constantly saying 'this is what we do and this is why we're doing it.'"

Such *disconnecting work* was not solely directed at the organizational base; facility managers also advocated for continued support from top managers by "beating the drum [of energy conservation] constantly, constantly… from the frontline person all the way up." This involved highlighting the success of energy conservation projects by showing how they reduced energy consumption year-over-year. Such disruption work helped ensure that planned energy conservation projects were not continuously threatened by

incentives toward short-termism and other priorities as funding commitments from government agencies fluctuated over time. As one informant stated:

> *"It's my job to go back to them [top management] and say, 'Okay, we didn't get incentive dollars but here's our energy consumption for last year and here's our energy consumption for this year. So there may not have been instant gratification, but long-term this is how we've improved things with respect to energy consumption by putting on that new roof.'*

Consequently, Green archetype hospitals approached the evaluation, adoption and implementation of potential energy conservation projects as an integral feature of how they provided high-quality, affordable patient care. The *disruption work* allowed Green archetype hospitals to more fully infuse green values into their structures and processes, enabling a more extensive integration energy conservation into organizational practices. Green archetype hospitals were institutionally oriented in their leadership (Selznick, 1957); and, that leadership was deep within the hospital. Building on the history of the successful implementation of energy conservation initiatives, green practices over time became infused throughout the hospital. The effect was for energy conservation projects to be at the core of their organizational practices.

2.4.5 Summary

In summary, our analyses revealed two archetypal approaches to energy conservation. In one, which we label the Dominant archetype, energy conservation was kept on the periphery and unrelated to the provision of the high-quality and affordable patient care. In the other, which we label the Green archetype, energy conservation was integrated into how patient care was provided. The impact was for Dominant archetype hospitals to engage in fewer energy conservation projects that were short-term and narrow in scope. Green archetype hospitals, in contrast, engaged in more widespread energy conservation projects. Moreover, the energy conservation projects that Green archetype hospitals engaged adversely affected neither the affordability nor the quality of patient care.

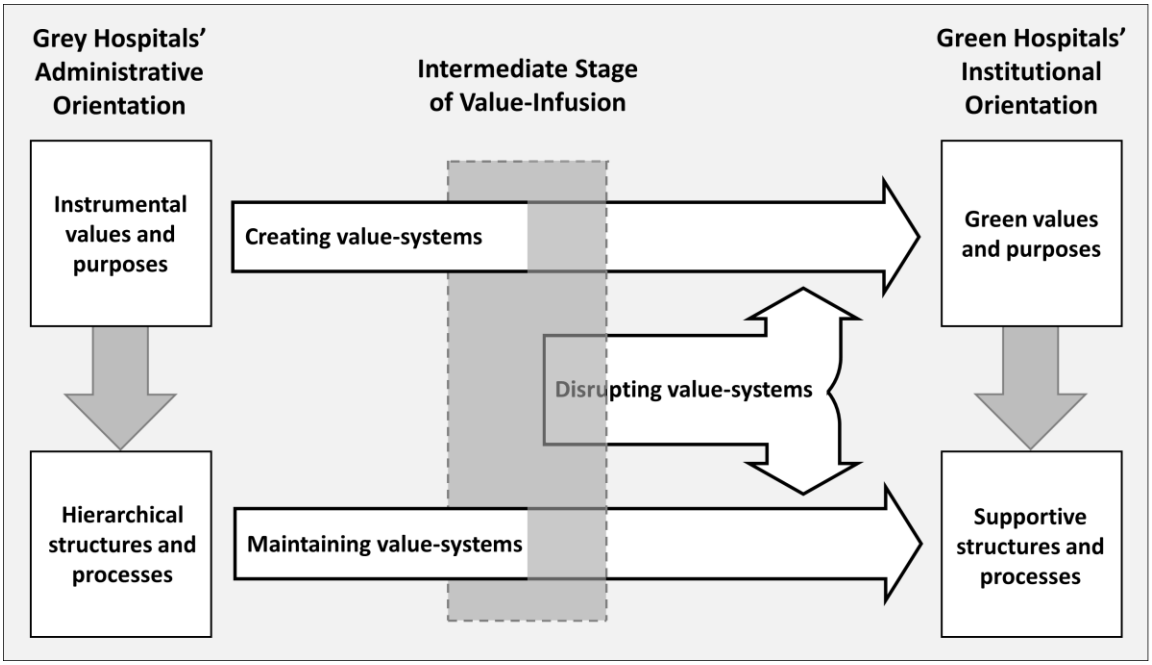

Figure 2: Process model of the infusion of values in Green archetype hospitals

Our analyses also elaborate the institutional work that hospitals undertook in order to become the Green archetype. We elaborate not only that hospitals must engage in all three processes of creation, maintenance, and disruption work but also that these processes must be widely dispersed throughout the multiple layers of leadership within the organization. Figure 2 presents a process model summarizing how value-infusion driven by distributed leaders' use of institutional work shaped the evaluation, adoption and implementation of energy conservation projects. It depicts institutional work as being instrumental in the process of incorporating peripheral concerns into the core values of an organization's structures and processes, through the processes of creation, maintenance and disruption. Absent institutional work, organizations remain administratively oriented with respect to peripheral concerns, leading to only marginal adoption of such concerns into organizational practices.

2.5 Discussion

We have demonstrated that institutional work was widely dispersed throughout Green archetype hospitals which sought to incorporate the peripheral concern of energy conservation into the core of their organizations. Specifically, we used Lawrence and

Suddaby's (2006) typology to describe the institutional work undertaken by organizations. The creation of value-systems involved *theorizing work* to construct a locally appropriate definition of the peripheral concern to be institutionalized, *defining work* to conceptualize the system of rules and incentives that delineate the implications of the peripheral concern across the various parties involved, and *advocacy work* to mobilize support throughout the organization. This created the enabling conditions for the evaluation and adoption of greening projects to be subject to less formal structures than was the case in the administratively-oriented Dominant archetype hospitals.

Additionally, the maintenance of value-systems involved *enabling work* to create new roles and processes for the evaluation, adoption and implementation of peripheral concerns through cross-departmental green committees, and *embedding and routinizing work* to infuse those concerns into daily practices and routines through platforms and policies that encourage the regular sharing of information across departments. This facilitated cross-departmental collaboration through the sharing of resources, responsibilities, benefits and risks related to the evaluation, adoption and implementation of the peripheral concerns into the core of the organization's practices.

Finally, the disruption of value-systems involved *disconnecting work* to connect or disconnect sanctions and rewards such as to encourage the institutionalization of peripheral concerns while undermining pre-established organizational practices. It also involved *disassociation work* to change the normative foundations of these pre-established rules and practices to redefine appropriate behaviour within the revised context in which the peripheral concern had become a core concern of the organization. This disruption of pre-existing value-systems pertaining to patient care encouraged the adoption and implementation of long-term and synergistic approaches to the pluralistic values of the organization.

2.5.1 Contributions to institutional leadership

This study contributes to the institutional leadership literature in several ways. First, our model of distributed institutional leadership elaborates how value-infusion is dispersed throughout a wide range of actors within an organization. In so doing, our study extends

this work to suggest that institutional leadership work, particularly in pluralistic organizations, depends upon distributed change agency rather than individual change agency (Gehman, Trevino, & Garud, 2013; Suddaby, Elsbach, Greenwood, Meyer, & Zilber, 2010; Zilber, 2002). Specifically, our study elaborates how institutional leadership is distributed throughout the organization.

Whereas the extant literature on institutional leadership has focused on the work of individual top managers as powerholders that singlehandedly influences value-infusion into the structures and processes to which organizational subgroups are subject (Kraatz, Ventresca, & Deng, 2010; Rojas, 2010; Selznick, 1957), distributed institutional leadership brings leaders distributed throughout the organization into this role (Currie, Lockett, Finn, Martin, & Wairing, 2012; Huising, 2019; Wright, Zammuto, & Liesch, 2017). It is this distribution that facilitates the building not only of a broadly shared mission and values but also of structures and processes that "embody" these values to ensure the maintenance of the organization's integrity (Selznick, 1992). Thus, our study extends the existing literature to elaborate how leaders defend the integrity of their organization amidst the fragmented and continually shifting structures of their pluralistic institutional environment (Besharov & Khurana, 2015).

Second, our study takes up the challenge set by Kraatz (2009) to make explicit the link between institutional leadership and institutional work. Specifically, we have focused on adapting organizational institutions in light of an external challenge. Extending the work of Washington, Boal, and Davis (2008), we elaborate how failure to adapt to the external challenge risked the legitimacy of the organizations with their external and internal audiences. Our findings demonstrate that the institutional concerns of energy conservation and affordable, quality and accessible patient care that were in tension at the outset were reconciled by hospitals whose leaders worked collaboratively across departments to create and maintain an integrated and coherent organization. In so doing, our study contributes to the literature on institutional leadership by articulating how an organization can institutionalize issues or concerns that were once peripheral. This is important because it begins to elaborate how although an organization is to some extent "hostage" (Selznick, 1996) to its history, that organization is not without recourse should

it choose otherwise. It must simply do so in a way that maintains the integrity of the organization and the support of a broad array of its members (Waeger & Weber, 2019).

Third, our model of distributed institutional leadership brings attention to the manner in which agency and structure are mutually constituted. The values and purposes of the institution become salient and articulated in the instantiations of organizational practices. Said differently, institutional work is ongoing. As a result, organizational institutions such as those pertaining to energy conservation in the hospitals in this study are best understood as "dynamic equilibria that need to be continuously reaffirmed, not as static structures that endure unless dislodged by effort" (Weber & Glynn, 2006, p. 1647). Consequently, this study extends the work of others (Lawrence & Suddaby, 2006; Raffaelli & Glynn, 2015) to elaborate how organizational leaders are neither "passive dopes" nor "hype-muscular" change agents but are instead able to work collaboratively to infuse values into their organization. They can exert agency by developing and drawing from the structures of their organization, especially when their capacity for such actions is enhanced by enabling conditions in their organization's broader institutional environment (Battilana & D'Aunno, 2009; Sewell, 1992).

2.5.2 Contributions to distributed leadership

This study also contributes to the distributed leadership literature. First, our model of distributed institutional leadership moves beyond elaborating how leaders can work together to initiate the functional or instrumental requirements of organizational change (Chreim, Williams, Janz, & Dastmalchian, 2010; Chreim, Langley, Comeau-Vallée, Huq, & Reay, 2013; Chreim, Langley, Reay, Comeau-Vallée, & Huq, 2020) to explain how distributed leadership is also essential in infusing values and purposes throughout the practices of the organization. In so doing, our study elaborates a normative dimension to organizational change that is largely absent in the current literature. In contrast to the existing literature, which emphasizes instrumental concerns such as role definition and project implementation that is essential for punctuated forms of organizational change, our analyses suggest that a normative dimension may help explain how organizations can engage in ongoing, endogenous change that can navigate the tension between the need for organizational stability and adaptation.

Second, and as elaborated in the implications for institutional leadership, our model of distributed institutional leadership articulates the mutual constitution of agency and structure. This extends the current distributed leadership literature, which emphasizes the role of structure as a constraint on possible courses of action of distributed leaders (Huxham & Vangen, 2000; Martin, Currie, & Finn, 2009). By articulating how structures are created and affirmed through practice, we explicate how leadership can initiate structural and therefore potentially more long-lasting organizational change.

2.5.3 Future research

In suggesting a future research agenda, we seek to leverage the key insight from our analyses that institutional leadership succeeds when it is widely distributed throughout an organization. A starting point might be to consider the process of institutionalization in different contexts. This study focuses on one type of organization, hospitals; however, the findings here are analytically generalizable (Yin, 2014) to theory about institutional leadership, as described above. Yet some unique characteristics of context must be acknowledged that potentially limit the transferability of this study's theory (Lincoln & Guba, 1985) to the institutionalization of organizations in other contexts. For instance, the impetus for institutionalization was an external mandate in the form of legislation passed by the provincial government. The organizations in our study did not have the option to ignore the peripheral concerns. They had to incorporate them into their practices in some form. Absent such a mandate some of the hospitals might have failed to incorporate the peripheral concerns. They would have found it more difficult to build the necessary coalitions. Would they have given-up at the first sign of difficulty?

The process might also differ if the impetus for the institutionalization was from within the organization. Would it change if it were top management, frontline staff or a specific functional area that was initially driving the institutionalization? The external mandate had the benefit of making it harder to blame internal actors for the need to incorporate the peripheral concern. Yet, it also made it harder to ignore the same need. Additionally, the process might differ for different sectors of economic activity; hospitals are more readily disposed to institutionalization than other organizations. The mission of hospitals is the well-being of their patients. Thus, although some might approach this

mission in administrative terms, it is not difficult to imagine that many approach it in institutional terms (Selznick, 1957). It might mean that institutionalization is easier or more readily accepted for such organizations than those whose mission emphasize profitability and efficiency.

A second area that is worthy of attention is related to the role of institutional leadership in energy conservation beyond hospitals. Energy conservation may be peripheral, but it is not clearly antagonistic to providing high-quality and affordable patient care. In our context, we show that energy conservation can be integrated with patient care by involving actors at multiple levels from multiple functional areas across an organization. However, it raises questions as to whether or not energy conservation could be integrated when it is antagonistic to the core concern of the organization. For instance, in industries such as airlines, automakers, or oil companies which either rely on or generate much of their income from fossil fuels, it is easier to imagine that such organizations will keep energy conservation at the periphery. Yet, if climate change is to be abated, it is essential that these organizations engage in energy conservation. Are other mechanisms or processes required for such organizations to integrate energy conservation into their core concerns?

A third area of future research is to consider the environment in which the organizations are embedded. When organizations engage in an institutionalization process, they do so within a cultural or extra-organizational institutional structure. Grand challenges such as climate change are not solvable solely by individual organizations (George, Howard-Grenville, Joshi, & Tihanyi, 2016). Our study shows that progress with respect to energy conservation arose as a result of legislation. This suggests that climate change had taken root in broader society. As a result, the meaning structures and infrastructural requirements needed to implement energy conservation projects existed and therefore could be drawn upon by each hospital. How would the institutionalization process have worked had an individual hospital attempted to engage in energy conservation twenty years earlier? How much did it matter to the institutionalization process that the hospitals in our study could look to their peers for guidance, support or justification?

A final avenue of future research is to consider the skills of leaders to induce the cooperation of actors both within an organization and in its broader communities. Our analyses suggest that in organizations that facilitate a common identity or common values (Maclean, Harvey, Sillince, & Golant, 2018; Perkmann & Spicer, 2014) actors can be motivated to initiate change. Our study also shows that inducing cooperation among disparate groups requires the construction of reproducible practices and structures (Fligstein, 2001). However, we acknowledge that value-infusion processes are likely messier and more complex than the coarse-grained mechanisms of institutional work suggest. A more fine-grained exploration might look at the social skill (Fligstein, 1997; 2001) of specific actors or groups of actors that is required to facilitate institutionalization. All this awaits future research.

2.6 Conclusion

By highlighting how organizations incorporate peripheral concerns into the core values of an organization's structures and processes, we have developed a model of distributed institutional leadership. In so doing, this research broadens our understanding of institutional leadership by illustrating how value infusion is both distributed among many actors within an organization and must be instantiated in the structures and processes. This study also reveals that organizations succeed in integrating the peripheral concern with the core concern of the organization, when they engage in all three aspects of institutional work. Failure to do so likely leads to the peripheral concern remaining on the periphery.

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2.8 Appendix

2.8.1 Tables

Table 4: Summary of hospital case informants

Informant No.	Title	Department	Hospital No.	Hospital Size	Regional Health Authority	Participation Method
1	Vice-President	Facilities and Building Services	1	Large	South West	Interviews
2	Director	Facilities and Building Services	2	Large	Toronto Central	Interviews
3	Senior Vice-President	Clinical	3	Large	Champlain	Interviews
4	Assistant Vice-President	Clinical	4	Large	Hamilton Niagara Haldimand Brant	Interviews
5	Director	Corporate Services	4	Large	Hamilton Niagara Haldimand Brant	Interviews
6	Manager	Energy	4	Large	Hamilton Niagara Haldimand Brant	Observations
7	Chief Financial Officer	Executive Suite	5	Large	South East	Interviews
8	Chief Financial Officer	Executive Suite	6	Large	Champlain	Interviews
9	Director	Facilities and Building Services	6	Large	Champlain	Interviews
10	Chief Financial Officer	Executive Suite	7	Small	Central East	Interviews
11	Project Manager	Operations	8	Small	Champlain	Interviews
12	Director	Corporate Services	9	Small	North West	Interviews
13	Vice-President	Corporate Services and Planning	10	Small	Waterloo Wellington	Interviews
14	Director	Facilities and Operations	11	Large	North Simcoe Muskoka	Interviews

15	Director	Ancillary Services	12	Small	North East	Interviews
16	Director	Facilities and Capital Planning	13	Large	Central	Interviews
17	Coordinator	Engineering Services	14	Small	North East	Interviews
18	Coordinator	Special Projects	14	Small	North East	Interviews
19	Coordinator	Sustainability	15	Large	Toronto Central	Observations
20	Program Manager	Energy and Sustainability	15	Large	Toronto Central	Observations
21	Manager	Energy and Sustainability	15	Large	Toronto Central	Observations
22	Manager	Planning and Development	16	Large	South West	Observations

Table 5: Case analysis results on organizational archetypes

Hospital No.	Values and Purposes	Structures and Processes	Value-infusion	Energy Conservation Practices	Arche-type
1	• CDM plan uses legalistic language and does not include a green vision • Impression management programs are in place to promote an appearance of greening among stakeholders	• No concertive evaluation, adoption and implementation of energy conservation due to hierarchical structures • Available funds are strictly allocated to diagnostic and imaging unless the government applies infrastructure funds that must be invested in energy conservation • Energy conservation projects must have a two-year payback or less to be deemed acceptable	Low	• Limited energy audits were undertaken • Aims to reduce GHGs and electricity consumption by <1% annually despite being one of the most carbon intensive facilities in the province • Plans to implement 2 energy conservation projects, 1 of which has ≥4-year payback	Dominant
5	• No externally facing green vision† • Acceptance of energy and GHG inefficiency legacy of old building infrastructure	• No concertive evaluation, adoption and implementation of energy conservation projects due to hierarchical structures • Energy conservation projects are evaluated on the basis of payback within one year so as to ensure balanced budgets and there is no desire to borrow funds for energy conservation • Short-term clinical and financial goals override promotion of energy conservation by the facilities and building services department	Low	• No energy audits undertaken • No public targets nor planned energy conservation projects	Dominant
6	• CDM Plan uses legalistic language and does not include a green vision	• No concertive evaluation, adoption and implementation of energy conservation projects due to hierarchical structures • Short-term clinical and financial goals override promotion of energy conservation by the facilities and building services department	Low	• No energy audits undertaken • Aims to reduce energy profile by an unspecified amount • Plans to implement 5 energy conservation projects with unspecified paybacks	Dominant
7	• No externally facing green vision†	• No concertive evaluation, adoption and implementation of energy conservation projects due to hierarchical structures • Short-term clinical and financial goals override promotion of energy conservation by the facilities and building services department	Low	• No energy audits undertaken • No public targets nor planned energy conservation projects	Dominant

13	• CDM Plan uses legalistic language and does not include a green vision • Impression management programs are in place to promote an appearance of greening among stakeholders	• No concertive evaluation, adoption and implementation of energy conservation projects due to hierarchical structures • Finance and capital budgeting department are highly involved in evaluation and adoption decisions via the capital committee of the Board, at the exclusion of the facilities and building services department • Only opportunities for greening are when energy infrastructure reaches the end of their useful life or when an energy conservation project has a maximum of two-or three-year payback	Low	• Commits to a future energy audit • Aims to reduce energy intensity by approximately 1.5 % annually • Plans to implement 10 energy conservation projects with unspecified payback	Dominant
11	• CDM Plan uses legalistic language and does not include a green vision	• No concertive evaluation, adoption and implementation of energy conservation due to hierarchical structures • Short-term clinical and financial goals override promotion of energy conservation by the facilities and building services department • Facility managers are strictly evaluated	Low	• No energy audits undertaken • Aims to reduce energy intensity by approximately 1 % annually • Plans to implement 5 mostly incremental energy conservation projects, 1 of which has ≥4-year payback	Dominant
12	• No externally facing green vision†	• No concertive evaluation, adoption and implementation of energy conservation due to hierarchical structures • Short-term clinical and financial goals override promotion of energy conservation by the facilities and building services department	Low	• No energy audits undertaken • No public targets nor planned energy conservation projects	Dominant
14	• CDM plan does not include a green vision • Impression management is an explicit goal	• No concertive evaluation, adoption and implementation of energy conservation due to hierarchical structures • Short-term clinical and financial goals (maximum 3-year payback) override promotion of energy conservation by the facilities and building services department • Facility managers are highly risk-avoidant	Low	• Commits to a future energy audit • Aims to reduce energy consumption by <1 % annually • Plans to implement 4 incremental energy conservation projects, with unspecified payback	Dominant
3	• CDM Plan uses legalistic language • Green vision presents energy conservation primarily as a means to financial efficiency, while acknowledging the importance of environmental stewardship for their community	• Some concertive implementation but no concretive evaluation and adoption of energy conservation projects • Energy conservation is integrated in hierarchical strategic planning and capital budgeting processes • Inter-departmental collaboration occurs only for project implementation through directives from top management, so complex and long-term projects are undermined during evaluation and adoption • Projects with a 5-year or shorter payback are considered	Inter-mediate	• Energy audit identified 16 opportunities (potential projects) for energy conservation, 7 of which have ≥4-year payback • Aims to reduce electricity consumption by 2 % annually • No public commitments for specific energy conservation projects	Neither

	• Impression management is an explicit goal				
9	• Green vision recognizes the importance of environmental health for public health, and the need to limit environmental impacts resulting from operations	• No concertive evaluation, adoption and implementation of energy conservation projects due to hierarchical structures • Top managers and the organization as a whole are focused on financial performance and patient care at the exclusion of energy conservation, in spite of green vision, indicating a disconnect from espoused values	Inter-mediate	• Energy audit identified 11 (potential projects) for energy conservation with unspecified payback • No public targets nor planned energy conservation projects	Neither
8	• Green vision recognizes the importance of environmental health for public health, and the need to limit environmental impacts resulting from operations	• Green committee was established and meets quarterly to discuss energy consumption/GHG emissions trends and how to lower energy/GHG intensity while minimizing clinical impacts • Distributed leaders concertively evaluate, adopt and implement projects but do not extensively disrupt pre-existing patient care institutions due to short-term financial goals attached to energy conservation	Inter-mediate	• Energy audit identified 8 opportunities (potential projects) for energy conservation, all of which have ≥4-year payback • Aims to reduce energy use intensity by approximately 1% annually • No planned energy conservation projects	Neither
4	• Green vision emphasizes the importance of environmental health for public health, and the need to limit environmental impacts resulting from operations	• Green committee was established after operating informally for some time • While the green committee has a role in the evaluation, adoption and implementation of energy conservation projects, top management buy-in remains an obstacle • Short-term clinical and financial goals tend to override the promotion of energy conservation by the facilities and building services department and the green committee	Inter-mediate	• Energy audit identified 3 opportunities (potential projects) for energy conservation, 1 of which has ≥4-year payback • No public targets for energy conservation • Plans to implement 9 energy conservation projects with unspecified payback, and is reviewing other potential projects	Neither
2	• Green vision to continue the hospital's leadership in energy conservation by improving energy performance of existing facilities and reinforcing a culture of excellence through a planned site redevelopment	• Green committee was established and meets bi-monthly • Building on a track-record of success in energy conservation, distributed leaders gained the autonomy and trust from top managers to invest in energy conservation projects with long-term paybacks (≥8 years) • Director of operations gained the title of Chief Energy Conservation Officer, reporting directly to the Board • Distributed leaders co-founded a regional program to further the greening of healthcare in collaboration with other hospitals • Board members demonstrate commitment and prioritization of energy conservation	High	• Commits to future energy audits • Considered the most energy efficient facility of its kind in North America • Aims to further reduce energy consumption by >5% annually in its existing facilities • Plans to implement 8 energy conservation projects, none of which have ≥4-year payback • Commits to incorporating the same high standards for energy efficiency into the	Green

				design, construction and operation of a new facility	
10	• Green vision recognizes the importance of reducing energy consumption and GHGs while maintaining levels of clinical services	• Green ("energy") committee was established, with a building services manager gaining the role of "energy leader" within the committee, with responsibilities for advancing energy conservation throughout the organization • "Energy leader" reports to top management and the Board on a quarterly basis to communicate on progress and areas where support is needed • Responsibility for evaluation, adoption and implementation of energy conservation projects is largely devolved to hospital staff and the facilities and building services department, with oversight from top management	High	• Energy audit is in process • Integrating energy conservation into organizational behaviour and culture through various staff engagement programs • Aims to reduce energy consumption by >2 % annually • Plans to implement 8 energy conservation projects with unspecified payback	Green
15	• Green vision recognizes the importance of reducing energy consumption and GHGs while maintaining levels of clinical services • Greening is supported by an extensive business case and guiding principles for the organization with a time horizon up to 20 years into the future • Impression management programs are in place to promote awareness of greening among stakeholders	• Green ("energy, environmental and sustainability") committee was established • Green committee is responsible for the evaluation, adoption and implementation of energy conservation projects and has strong support from top management since many of them either have an energy background or have been around long enough to understand what energy projects entail • Green committee has a strong emphasis on culture and behavioural change which is supported by a sustainability coordinator	High	• Integrating energy conservation into organizational behaviour and culture • Completed an energy audit • Aims to reduce energy consumption by > 3 % annually • Plans to implement 13 energy conservation projects, 9 of which have a ≥4-year payback, including 1 operating room project	Green
16	• Green vision aims to integrate energy conservation into indoor environmental quality,	• Green committees ("working groups") were established in various areas (e.g. procurement, clinical operations, new construction) to advance integration of greening	High	• Integrating energy conservation into organizational behaviour and culture • Energy audit identified 6 opportunities	Green

	operational efficiency, procurement and financial decision making such as to achieve “environmental excellence”	• Distributed leaders in these committees have autonomy in evaluating, adopting and implementing energy conservation projects, and play a key role in ensuring a culture of compliance and environmental stewardship among staff in various departments		(potential projects) for energy conservation,4 of which have a ≥4-year payback • No public targets for energy conservation • Plans to implement 14 energy conservation projects, 6 of which have a ≥4-year payback, including 2 operating room projects	

† Hospital did not post a CDM plan in the public domain

2.8.2 Research ethics

2.8.2.1 Research approval letters

Western Research

Date: 22 October 2021

To: Dr. Glenn Rowe

Project ID: 119822

Study Title: A Multi-Level Approach to Understanding the Adoption of Energy Efficiency Practices in Ontario Hospitals (DATA ACCESS)

Short Title: A Multi-Level Approach to Understanding the Adoption of Energy Efficiency Practices in Ontario Hospitals (DATA ACCESS)

Application Type: NMREB Initial Application

Review Type: Delegated

Full Board Reporting Date: November 5 2021

Date Approval Issued: 22/Oct/2021 22:16

REB Approval Expiry Date: 22/Oct/2022

Dear Dr. Glenn Rowe

The Western University Non-Medical Research Ethics Board (NMREB) has reviewed and approved the WREM application form for the above mentioned study, as of the date noted above. NMREB approval for this study remains valid until the expiry date noted above, conditional to timely submission and acceptance of NMREB Continuing Ethics Review.

This research study is to be conducted by the investigator noted above. **All other required institutional approvals and mandated training must also be obtained prior to the conduct of the study.**

Documents Approved:

Document Name	Document Type	Document Date	Document Version
Email script	Recruitment Materials	27/Sep/2021	1
Letter of Information and Consent_V1	Written Consent/Assent	27/Sep/2021	1

Documents Acknowledged:

Document Name	Document Type	Document Date	Document Version
University of Toronto Researchers' Interview Guide	Interview Guide	06/Sep/2021	1
University of Toronto Researchers' LOIC	Interview Guide	06/Sep/2021	1

No deviations from, or changes to the protocol should be initiated without prior written approval from the NMREB, except when necessary to eliminate immediate hazard(s) to study participants or when the change(s) involves only administrative or logistical aspects of the trial.

The Western University NMREB operates in compliance with the Tri-Council Policy Statement Ethical Conduct for Research Involving Humans (TCPS2), the Ontario Personal Health Information Protection Act (PHIPA, 2004), and the applicable laws and regulations of Ontario. Members of the NMREB who are named as Investigators in research studies do not participate in discussions related to, nor vote on such studies when they are presented to the REB. The NMREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000941.

Please do not hesitate to contact us if you have any questions.

Sincerely,

Kelly Patterson , Research Ethics Officer on behalf of Dr. Randal Graham, NMREB Chair

Note: This correspondence includes an electronic signature (validation and approval via an online system that is compliant with all regulations).

Western Research

Date: 10 December 2021

To: Dr. Glenn Rowe

Project ID: 119822

Study Title: A Multi-Level Approach to Understanding the Adoption of Energy Efficiency Practices in Ontario Hospitals (DATA ACCESS)

Application Type: NMREB Amendment Form

Review Type: Delegated

Full Board Reporting Date: January 14 2022

Date Approval Issued: 10/Dec/2021 13:33

REB Approval Expiry Date: 22/Oct/2022

Dear Dr. Glenn Rowe,

The Western University Non-Medical Research Ethics Board (NMREB) has reviewed and approved the WREM application form for the amendment, as of the date noted above.

Documents Approved:

Document Name	Document Type	Document Date	Document Version
Letter of Information and Consent_V2	Written Consent/Assent	09/Dec/2021	2

REB members involved in the research project do not participate in the review, discussion or decision.

The Western University NMREB operates in compliance with the Tri-Council Policy Statement Ethical Conduct for Research Involving Humans (TCPS2), the Ontario Personal Health Information Protection Act (PHIPA, 2004), and the applicable laws and regulations of Ontario. Members of the NMREB who are named as Investigators in research studies do not participate in discussions related to, nor vote on such studies when they are presented to the REB. The NMREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000941.

Please do not hesitate to contact us if you have any questions.

Sincerely,

Kelly Patterson , Research Ethics Officer on behalf of Dr. Randal Graham, NMREB Chair

Note: This correspondence includes an electronic signature (validation and approval via an online system that is compliant with all regulations).

2.8.2.2 Email script

Email script for roundtable informants

Hello [Name],

[Personalized greeting]

We met in 2015 at a Roundtable on Energy Efficiency in Hospital Buildings hosted by Buildings Magazine. I was a Doctoral student at the time and I used the notes from our meeting as part of a larger dataset for my research.

I am contacting you today to see if you would consent to me sharing my transcript notes from this meeting with a research colleague based at the Ivey Business School, Western University. The data will be re-analyzed and, since this researcher was not part of the original research team, I need your permission in order to proceed.

John

Email script for interview informants

Hello [Name],

[Personalized greeting]

You participated in interviews for my research on energy conservation and green revolving funds in Ontario hospitals in 2014. I was a Doctoral student at the time and I used the notes from our meeting as part of a larger dataset for my research.

I am contacting you today to see if you would consent to me sharing my transcript notes from this meeting with a research colleague based at the Ivey Business School, Western University. The data will be re-analyzed and, since this researcher was not part of the original research team, I need your permission in order to proceed.

John

2.8.2.3 Letter of information and consent – version 1

Ivey Business School

Western University · Canada

LETTER OF INFORMATION

Research Title: "Multi-Level Approach to Understanding the Adoption of Energy Efficiency Practices in Ontario Hospitals"

Researcher/Co-Investigator: Gabriel A. Huppé, PhD Candidate, Ivey Business School, Western University

Principal Investigator: Dr. [redacted], Professor, Ivey Business School, Western University

Purpose of Study: The purpose of this study is to contribute to understanding of the dynamics of implementing energy conservation projects in Ontario hospitals. This research benefits all Ontarians as energy conservation measures are a cost-effective method to achieve global greenhouse gas emission targets, provide environmental protection and better public health and generate cost savings that can be re-directed into health care delivery. In addition, energy conservation and climate change mitigation strategies contribute to a more robust and resilient health care system through strengthened and renewed infrastructure, while also promoting many co-benefits including improved air quality, thermal comfort, productivity, energy security and job skills.

The study will draw from secondary data which has been previously collected by University of Toronto researchers, John Maiorano and [redacted], through the following methods. A series of 14 interviews with senior administrators of Ontario Hospitals, focusing on the internal structures and processes involved with implementing energy conservation projects in Ontario hospitals. Observation of roundtable meetings with foundations, health care administrators, local health integrate networks (LHINs) and grant makers to understand the constraints in implementing energy efficiency projects.

Procedures: The previously collected data is analyzed to draw out a typology of hospitals' approaches to energy conservation and mechanisms through which energy conservation values are incorporated into hospitals. Using the theoretical framing of institutional leadership, we bring focus to the manner in which hospitals approached the mandate of energy conservation through their values and purposes, and also the manner in which these values and purposes were incorporated into organizational structures and processes of hospitals.

Invitation to Re-Consent: As an informant in the original study conducted by University of Toronto researchers, John Maiorano and [redacted], you are invited to re-consent to your data being shared with and re-analyzed by our research team located at Ivey Business School, Western University.

Potential Risks: There are no known or anticipated risk.

Benefits: This research will help broaden understanding of the dynamics surrounding energy efficiency practices in organizations. Significant cost savings can be realized in Ontario hospitals through investment in energy efficiency projects. However, Ontario hospitals often neglect investment opportunities in energy efficiency even though it is profitable to do so, a phenomenon referred to as the 'energy efficiency gap'. Our study will help elucidate constructs and mechanisms associated with energy conservation leadership in hospitals, which can help inform interventions within hospitals and at the level of public policy so as to help reduce the 'energy efficiency gap'.

Compensation for Participation: Participants will not be compensated.

Version Date: 09/27/2021
Page 1 of 3

Participation and Withdrawal: Participation is voluntary. An individual may choose to abstain from participating or withdraw from the study at any time with no consequence whatsoever. Participation or withdrawal will not affect employment status, future promotions or have any other work-related benefits or impacts.

Confidentiality: All data collected will remain confidential and accessible only to the investigators of this study. All collected information has been de-identified by assigning a unique study ID number or pseudonym to participants. A table with original names, contact information of participants and their unique study ID number has been kept by the University of Toronto researchers in a secure location, separately from any collected data. This table will not be shared with our research team. The transferred data will be stored at a secure location on the Western University server on the network address: \\biz-info.ivey.ca\PhD\ghuppe.

All data collected will be kept in a secure and confidential location for 15 years. If the results are published, participants' names will not be used. We will keep their name confidential in any publication. Provided that we have consent, an approximation of their title may be used for the purpose of personal quotes and providing support for our research. Their organization will equally remain confidential. Representatives of the Western University Non-Medical Research Ethics Board may require access to study-related records to monitor the conduct of our research.

Who to Contact with Questions: If you require further information regarding this research project or your participation in the study, you may contact:

Co-Investigator:
Gabriel A. Huppé
Email: [redacted]
Mobile: [redacted]

Principal Investigator:
Dr. [redacted]
Email: [redacted]
Office: [redacted]

If you have questions about your rights as a research participant or the conduct of this study, you may contact:

Office of Human Research Ethics
Western University
Email: [redacted]
Office: [redacted]

You do not waive any legal right by consenting to participate. This letter is yours to keep for future reference.

CONSENT FORM

Research Title: "Multi-Level Approach to Understanding the Adoption of Energy Efficiency Practices in Ontario Hospitals"

Researcher/Co-Investigator: Gabriel A. Huppé, PhD Candidate, Ivey Business School, Western University

Principal Investigator: Dr. [redacted], Professor, Ivey Business School, Western University

Statement of Consent: By signing below, I indicate that I have read the Letter of Information, have had the nature of the study explained to me and agree to participate. All questions have been answered to my satisfaction.

Do you consent to the use of unidentifiable quotes obtained during the study in the dissemination of this research?

YES ☐ NO ☐

Do you agree to have an approximation of your occupational role used in the dissemination of this research?

YES ☐ NO ☐

Participant's Name (Please Print): _____

Participant's Signature: _____

Date: _____

Person Obtaining Informed Consent (Please Print): _____

Person Obtaining Informed Consent's Signature: _____

Date: _____

Version Date: 09/27/2021
Page 3 of 3

2.8.2.4 Letter of information and consent – version 2

Ivey Business School

Western University · Canada

LETTER OF INFORMATION

Research Title: "Multi-Level Approach to Understanding the Adoption of Energy Efficiency Practices in Ontario Hospitals"

Researcher/Co-Investigator: Gabriel A. Huppé, PhD Candidate, Ivey Business School, Western University

Principal Investigator: Dr. [redacted] Professor, Ivey Business School, Western University

Purpose of Study: The purpose of this study is to contribute to understanding of the dynamics of implementing energy conservation projects in Ontario hospitals. This research benefits all Ontarians as energy conservation measures are a cost-effective method to achieve global greenhouse gas emission targets, provide environmental protection and better public health and generate cost savings that can be re-directed into health care delivery. In addition, energy conservation and climate change mitigation strategies contribute to a more robust and resilient health care system through strengthened and renewed infrastructure, while also promoting many co-benefits including improved air quality, thermal comfort, productivity, energy security and job skills.

The study will draw from secondary data which has been previously collected by University of Toronto researchers, John Maiorano and [redacted], through the following methods. A series of 14 interviews with senior administrators of Ontario Hospitals, focusing on the internal structures and processes involved with implementing energy conservation projects in Ontario hospitals. Observation of roundtable meetings with foundations, health care administrators, local health integrate networks (LHINs) and grant makers to understand the constraints in implementing energy efficiency projects.

Procedures: The previously collected data is analyzed to draw out a typology of hospitals' approaches to energy conservation and mechanisms through which energy conservation values are incorporated into hospitals. Using the theoretical framing of institutional leadership, we bring focus to the manner in which hospitals approached the mandate of energy conservation through their values and purposes, and also the manner in which these values and purposes were incorporated into organizational structures and processes of hospitals.

Invitation to Re-Consent: As an informant in the original study conducted by University of Toronto researchers, John Maiorano and [redacted], you are invited to re-consent to your data being shared with and re-analyzed by our research team located at Ivey Business School, Western University.

Potential Risks: There are no known or anticipated risk.

Benefits: This research will help broaden understanding of the dynamics surrounding energy efficiency practices in organizations. Significant cost savings can be realized in Ontario hospitals through investment in energy efficiency projects. However, Ontario hospitals often neglect investment opportunities in energy efficiency even though it is profitable to do so, a phenomenon referred to as the 'energy efficiency gap'. Our study will help elucidate constructs and mechanisms associated with energy conservation leadership in hospitals, which can help inform interventions within hospitals and at the level of public policy so as to help reduce the 'energy efficiency gap'.

Compensation for Participation: Participants will not be compensated.

Participation and Withdrawal: Participation is voluntary. An individual may choose to abstain from participating or withdraw from the study at any time with no consequence whatsoever. Participation or withdrawal will not affect employment status, future promotions or have any other work-related benefits or impacts.

Confidentiality: All data collected will remain confidential and accessible only to the investigators of this study. All collected information has been de-identified by assigning a unique study ID number or pseudonym to participants. A table with original names, contact information of participants and their unique study ID number has been kept by the University of Toronto researchers in a secure location, separately from any collected data. This table will not be shared with our research team. The transferred data will be stored at a secure location on the Western University server on the network address: \\biz-info.ivey.ca\PhD\ghuppe.

All data collected will be kept in a secure and confidential location for 15 years. If the results are published, participants' names will not be used, unless a participant has explicitly requested to waive confidentiality. We will keep their name confidential in any publication, unless a participant has explicitly requested to waive confidentiality. Provided that we have consent, an approximation of their title may be used for the purpose of personal quotes and providing support for our research. Their organization will equally remain confidential. Representatives of the Western University Non-Medical Research Ethics Board may require access to study-related records to monitor the conduct of our research.

Who to Contact with Questions: If you require further information regarding this research project or your participation in the study, you may contact:

Co-Investigator:
Gabriel A. Huppé
Email: [redacted]
Mobile: [redacted]

Principal Investigator:
Dr. [redacted]
Email [redacted]
Office: [redacted]

If you have questions about your rights as a research participant or the conduct of this study, you may contact:

Office of Human Research Ethics
Western University
Email: [redacted]
Office: [redacted]

You do not waive any legal right by consenting to participate. This letter is yours to keep for future reference.

CONSENT FORM

Research Title: "Multi-Level Approach to Understanding the Adoption of Energy Efficiency Practices in Ontario Hospitals"

Researcher/Co-Investigator: Gabriel A. Huppé, PhD Candidate, Ivey Business School, Western University

Principal Investigator: Dr. [redacted], Professor, Ivey Business School, Western University

Statement of Consent: By signing below, I indicate that I have read the Letter of Information, have had the nature of the study explained to me and agree to participate. All questions have been answered to my satisfaction.

Do you waive confidentiality and consent to the use of identifiable quotes obtained during the study in the dissemination of this research?

YES ☐ NO ☐

Do you agree to have an approximation of your occupational role used in the dissemination of this research?

YES ☐ NO ☐

Participant's Name (Please Print): _____

Participant's Signature: _____

Date: _____

Person Obtaining Informed Consent (Please Print): _____

Person Obtaining Informed Consent's Signature: _____

Date: _____

Version Date: 12/09/2021
Page 3 of 3

Chapter 3

3 Unwitting consequences of hospitals' responses to conflicting institutional pressures

3.1 Introduction

Institutional scholars have recognized that the starting point for studies of institutional complexity is that organizations encounter many conflicting demands which are both internally inconsistent and in tension with their core technical requirements (Greenwood, Raynard, Kodeith, & Micelotta, 2011). Research has demonstrated that institutional complexity has led organizations to seek conformance in select areas while decoupling from others (Pache & Santos, 2013). For instance, fragmented pressures for health access, quality and cost efficiency in the United States have led affected health care organizations to selectively couple with minimal standards in each category in order to maintain political and professional support (Scott, 1992: 107-112). Similarly, faced with the rising popularity of alternative drug abuse treatments, professional mental health centres responded by creating hybrid units that adapted institutional templates by selectively coupling professional psychosocial practices and tools with new alternative practices, even though the latter conflicted with traditional, evidence-based methods, thus decoupling from the latter (D'Aunno, Sutton, & Price, 1991). Such selective (de)coupling allows organizations to avoid close alignment with institutional pressures that would "merely make public a record of *inefficiency* and *inconsistencies*" (emphasis added; Meyer & Rowan, 1977: 357).

However, decoupling, as traditionally understood (Meyer & Rowan, 1977), may not be a viable response when organizations face highly rationalized demands that are subject to extraordinary degrees of accountability and transparency (Bromley & Powell, 2012). Under such conditions, external scrutiny makes decoupling impossible, and rationalization negates opportunities to manipulate institutional templates. Hence, these societal trends pressure organizations to align their policies and practices through implementation (Bromley & Powell, 2012). Therefore, faced with extraordinary degrees of transparency and accountability, organizations must choose to either comply, defy or

compromise with the requirements of conflicting institutional pressures, since manipulation and avoidance may not be possible (Oliver, 1991). These organizations are thus likely to encounter inconsistencies and inefficiencies when responding to institutional complexity. Yet, there is a paucity of conceptual typologies and theoretical language to make sense of the unwitting organizational dynamics that might result within such institutional contexts.

Set in the context of chronic disease management in acute care hospitals, this study investigates organizations' responses to such conflicting institutional pressures amidst heightened requirements for transparency and accountability, with the goal of analyzing the implications of political (in)consistency, cultural (in)consistency and technical (in)efficiency on organizations' core operations and outcomes. I investigate hospitals' responses to dual-pronged reforms, which pressured hospitals to simultaneously pursue cost reduction and clinical quality improvements for procedures associated with chronic medical conditions. The centering of this research on a single sector and jurisdiction (Ontario, Canada) allows me to isolate institutional pressures that are commonly shared among a group of organizations. This allows the investigation to focus on organizations' heterogenous responses to conflicting pressures, and the consequences of these responses for organizational change and performance.

Using configurational analysis, I uncover four meta-configurations of organizational responses, three of which are associated with adverse organizational change and performance. I demonstrate how organizational responses consist in different political, technical and cultural dynamics and that these aspects interact in configurations to affect various mechanisms of organizational change. Only through an alignment of political, technical and cultural responses did organizations substantially implement clinical best practices and pathways for chronic medical conditions. I explain how misalignment at the level of any of the three aspects caused a deterioration clinical services and outcomes, albeit through different organizational change mechanisms. I end by discussing the implications of findings by recasting the construct of selective (de)coupling into institutional environments that exert significant external scrutiny upon organizations and wherein strong field-level beliefs about legitimate templates makes

their avoidance or manipulation an unviable strategy in the face of conflicting institutional pressures.

3.2 Theoretical background

The health sector is a canonical setting for researching organizational responses to institutional complexity due to the persistence of conflicting pressures (Dunn & Jones, 2010; Reay & Hinings, 2009; Scott, Ruef, Mendel, & Caronna, 2000; Goodrick & Reay, 2011). In this section, I highlight how hospitals' responses to conflicting institutional pressures can create *internal inconsistencies* and *technical inefficiencies*, within their organization. I then make the case for examining how *internal inconsistencies* and *technical inefficiencies* interact within organizations.

Health system reforms have sought to improve patient experience and health outcomes, while reducing costs (Bate, Mendel, & Robert, 2008; Berwick, Nolan, & Whittington, 2008; Palmer, et al., 2018). These reforms have created the risk that hospitals align their political or cultural systems with one pressure over an other as administrators and clinicians grapple with the tensions that exist between cost reduction and other measures of healthcare quality (Palmer, et al., 2018). The higher the degree of incompatibility between the prescriptions of conflicting pressures, the more extensive the conflict (Besharov & Smith, 2014). As a result, this can cause actors to grapple with divergent means and divergent ends, creating significant disturbances within and between subgroups of the organization (Battilana & Dorado, 2010). And, it can create organizational turmoil as subgroups grapple with epistemic distress within the implementation process of divergent initiatives (Hallett, 2010). Because the practices and outcomes of cost reduction can conflict with the practices and outcomes of clinical quality improvement in acute care hospitals (Chen, et al., 2010; Jha, Orav, Dobson, Book, & Epstein, 2009; Stukel, et al., 2012), the alignment of political or cultural systems with cost reduction strengthens organizational dynamics that are unconducive to improving the quality of clinical services and their outcomes. Definitionally, *internal inconsistencies* occur when an organization's political or cultural systems align with practices and outcomes of one pressure at the expense of the practices and outcomes of another.

Moreover, healthcare organizations such as hospitals are sometimes pressured to adopt technical procedures that are infused with value and meaning beyond their technical rationale (Kennedy & Fiss, 2009; Westphal, Gulati, & Shortell, 1997). These technically inefficient procedures tend to be legitimated by fashion setters like consultants, government agencies and media publications who promote them within the organizational field in spite of a lack of evidence that these procedures contribute to their intended outcomes (Abrahamson, 1991; 1996). This creates an impetus for hospitals to adopt quality improvement initiatives that are either not clearly or adversely linked to their intended outcomes (Bromley & Powell, 2012; Zbaracki, 1998). The adoption of such procedures within hospitals can therefore create technical inefficiencies that are unconducive to improving the quality of clinical services. Definitionally, *technical inefficiencies* occur when an organization adopts operating procedures that are incongruent with the organization's technical requirements due to these procedures being inappropriate means by which to pursue their intended outcomes.

3.2.1 Interaction of internal (in)consistencies and technical (in)efficiencies

Scholars have shown that, when an organization adopts technical procedures, cultural and political inconsistencies within their organization can cause their implementation to fail (Kostova & Roth, 2002; Reger, Gustafson, Demarie, & Mullane, 1994). For example, in a healthcare context, implementation is frequently impacted by factors that influence how the risks and benefits of technical procedures map against the interests, power and values of the organization (Denis, Hébert, Langley, Lozeau, & Trottier, 2002). Therefore, it is important to assess how organizational culture and politics interact and jointly influence how technical procedures are implemented. Yet, most of the empirical research studying the implementation of technical procedures in organizations either does not differentiate between culture and politics (Goodrick & Salancik, 1996), or focuses on a single dyad (Bromley, Hwang, & Powell, 2012; Kellogg, 2009; 2012; Kern, Laguecir, & Leca, 2018; Lozeau, Langley, & Denis, 2002).

The dyadic approach is also prevalent in conceptual works. For instance, Ansari, Fiss and Zajac (2010) considered the importance of all three types of organizational dynamics. In their conceptual paper, they argued that organizations with a high degree of political, cultural and technical fit are likely to implement practices more extensively and with greater fidelity than organizations with poor political, cultural and technical fit. Yet, their arguments focus on dyadic relationships, and thereby neglect the full complexity of organizational responses. Therefore, they do not provide answers to how the implementation of technical procedures might unfold in organizations that have a favourable political context, but unfavourable cultural context, and vice-versa. Further, they do not consider how the culture and politics of organizations may change as a response to institutional processes.

Oliver (1992)'s framework demonstrates how the institutional environment exerts political, social and functional pressures, which can generate various constellations of political, cultural and technical responses in organizations. Political pressures can cause shifts in the distribution of power and interests within the organization, and therefore change the willingness or ability of organizational members implement certain technical procedures. Social pressures can cause shifts in cultural consensus within the organization, and therefore change the values and meaning that organizational members attributed to technical procedures. Finally, functional pressures can influence perceptions about the instrumental value of technical procedures and thereby shape what technical procedures organizations decide to adopt. Because political, social and functional pressures often co-exist, scholarship is needed to examine how organizations respond to these institutional processes. More specifically, scholarship is needed to examine how institutional processes can generate constellations of cultural (in)consistencies, political (in)consistencies and technical (in)efficiencies in organizations, and how these dynamics might interact to affect organizational change and performance.

Accordingly, this paper draws on recent advances in configurational analysis, which have enabled scholars to examine the causes and consequences of configurations

of organizational aspects (Fiss, 2011).[2] Scholars have used configurational analysis to examine antecedents of organizations' responses to conflicting institutional pressures (Bromley, Hwang, & Powell, 2012; Crilly, Zollo, & Hansen, 2012; Misangyi, 2016), but, in contrast to these prior studies, I use configurational analysis to understand the consequences of organizational responses. This paper thus responds to organizational scholars who have called for the application of a configurational perspective to the study of the consequences of organizational responses to conflicting institutional pressures (Misangyi, et al., 2017; Raynard, 2016; Zhao, Fisher, Loundsbury, & Miller, 2017).

By investigating how an organization's political, cultural and technical responses interact in configurations to affect organizational change and performance, this paper extends existing institutional theory on decoupling. As institutional scholars have remarked, "[d]ecoupling, although an important and well-recognized organizational response, deserves further and closer attention in order to isolate its different forms and outcomes (Greenwood, Raynard, Kodeith, & Micelotta, 2011, pp. 350-351)." To further this agenda, Bromley and Powell (2012, p. 36) opined that "[decoupling] research should examine the mechanisms through which [organizational] policies, practices, and outcomes become aligned or maintain distinct trajectories, with an eye to analyzing the role of external pressures at all stages."

In this paper, I demonstrate how various configurations of organizational responses generate unwitting decoupling of policies, practices and outcomes owing to the

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[2] The configurational perspective (Meyer, Tsui, & Hinings, 1993) differs from the general linear perspective in three important ways (Misangyi, et al., 2017). The first is its positioning toward equifinality, as the configurational perspective entails that there are multiple, varied pathways to any given outcome. The second is its consideration of conjunctural causation, as the configurational perspective entails that outcomes are produced by combinations of interdependent conditions, and rarely by any single condition. The third is its consideration of causal asymmetry, as the configurational perspective entails that a condition that is causally related to an outcome, as part of one configuration, may also be either unrelated or inversely related to the same outcome, as part of another. The configurational perspective can thus help untangle the consequences of organizational responses to institutional complexity by identifying analytically distinct combinations of conditions and their associations to intended outcomes.

manner that organizations politically, culturally and technically respond to conflicting institutional pressures. The paper also advances a typology to describe how organizations' political, cultural and technical responses interact to affect change in practices in the organization. In so doing, it contributes to a movement in management scholarship which is seeking to bring the "organization as a whole" to the centre stage of institutional theory (Greenwood, Hinings, & Whetten, 2014, p. 1208).

3.3 Research setting

The investigation focuses on Ontario hospitals' political, cultural and technical responses to pressures for cost reduction and clinical quality improvement for patients with chronic diseases. This setting, described at greater length below, provides an opportunity to examine organizations dealing with political and cultural inconsistencies as well as technical inefficiency as they seek to conform with various conflicting pressures in their institutional environment.

Ontario hospitals were pressured toward clinical quality improvement as a result of the Health Ministry of Ontario's introduction of the Excellent Care for All Act (Legislative Assembly of Ontario, 2010). The Act did not provide financial incentives for hospitals to undertake clinical quality improvement (Palmer, et al., 2018). However, it formalized organizational processes involved in the planning and implementation of clinical quality improvement by requiring that Ontario hospitals establish a Quality Committees responsible for overseeing the development and implementation of quality improvement plans (QIPs) in the organization. As per this legislated process, Ontario hospitals were expected to incorporate the quality improvement recommendations of a Provincial Advisory Agency (Health Quality Ontario), which provided an annual list clinical quality improvement areas for hospitals to prioritize in their QIPs.

In fiscal 2017, the Provincial Advisory Agency required that three chronic diseases – congestive heart failure (CHF), chronic obstructive pulmonary disease (COPD) and stroke – be included in hospitals' QIPs. The impetus for the inclusion of CHF, COPD and stroke into the legislated quality improvement planning and

implementation process was to encourage Ontario hospitals to incorporate the Health Ministry's clinical handbooks. In 2015, the Health Ministry had released several clinical handbooks that described in detail the clinical best-practices and pathways that hospitals should follow when caring for patients with CHF, COPD and stroke. In order to conform with the Provincial Advisory Agency, hospitals were required to describe their commitments to improving clinical practices and outcomes for these patients. While hospitals were required to publish their QIPs, outlining their commitment to patients with chronic conditions, the implementation of clinical best-practices and pathways contained in the Health Ministry's clinical handbooks was voluntary (Palmer, et al., 2018).

Yet, in tandem with pressures for improving the quality of clinical care provided to patients with chronic diseases, Ontario hospitals were also pressured to reduce the costs associated with caring for these patients. The Health Ministry of Ontario introduced the Health System Funding Reform which encouraged hospitals to pursue cost-efficiencies when treating patients with chronic diseases such as CHF, COPD and stroke (Ministry of Health and Long-Term Care, 2013). As per this funding reform, hospitals were to receive a fixed sum payment based on the cost of providing inpatient care over the average length of stay of patients admitted to hospital with a chronic disease in Ontario. For example, the Health Ministry provided all Ontario hospitals with the fixed sum of CA$ 5,352 (adjusted for case mix acuity) for every patient admitted with a main diagnosis of COPD to cover an average length of stay of 5 days.

Since COPD patient's length of stay is the primary determinant of costs for hospitals, this "price times patient volume" funding mechanism created pressures for hospitals to reduce costs by decreasing COPD patients' length-of-stay. It also created incentives for these hospitals to reduce treatment intensity (cost per day) for these patients by reducing the cost of nursing staff and other allied health personnel by increasing the caseload of nurses and personnel or relying on less experienced, lower-paid nursing staff and personnel. Under this funding reform, hospitals achieving a lower-than-average length-of-stay or treatment intensity for COPD patients would realize a net financial gain, whereas those experiencing a higher-than average length-of-stay or treatment intensity for COPD patients would realize a net financial loss.

Thus, Ontario hospitals were subject to two conflicting pressures. The Excellent Quality for All Act pressured Ontario hospitals to undertake clinical quality improvements for chronically diseased patients while the Health System Funding Reform pressured hospitals to reduce costs associated with caring for these patients by shortening the length of their hospital stay or decreasing their treatment intensity. These dual pressures created the potential for internal inconsistencies in their organization.

In sum, this research setting presented an opportunity to study organizational responses to pressures for cost-reduction and highly rationalized demands for improving clinical services and outcomes, to which organizations were held to extraordinary degrees of transparency and accountability. This setting provided an opportunity to observe organizations grappling with divergent practices and divergent outcomes as they sought to conform with conflicting external pressures. I expected that hospitals would experience improvement or worsening of clinical outcomes for chronically diseased patients depending upon how they politically, technically and culturally responded to pressures that could create or exacerbate both internal inconsistencies and inefficiencies in their organization.

3.4 Configurational analysis

The investigation was based on a configurational analysis of Ontario hospitals' QIPs during fiscal year 2017 in response to pressures to improve clinical outcomes for COPD, while they also faced pressures to reduce costs. Based on cross-case comparison, this study uses Qualitative Comparative Analysis (QCA) to identify relationships between a hospital's rate of change in a key clinical outcome (the incidence of risk-adjusted readmissions for patients with COPD) and espoused responses at the hospital's political, cultural and technical levels of analysis that serve as predictors of change in this outcome. Thus, the QCA methodology enables the identification of theoretically relevant configurations found to be empirically associated with improvement or worsening in this clinical outcome, addressing the research question: what configurations of political, technical and cultural responses are associated with improvement or worsening in clinical

outcomes over time? I used hospitals' 2017 QIPs to construct political, technical and cultural variables for all 65 large community and teaching hospitals in Ontario.

While QCA is a relatively new methodology in management scholarship (Fiss, 2007), it has already proven useful in integrating, extending, deepening and refining existing theories (Crilly, Zollo, & Hansen, 2012; Fiss, 2011; Vergne & Depeyre, 2016). It is particularly well suited to examining multi-level, complex cause-effect relationships (Bell, Filatotchev, & Aguillera, 2014; Campbell, Sirmon, & Schijven, 2016), which are frequently observed in management scholarship on organizational and strategic change in healthcare organizations (Adler et al., 2003; Denis, Lamothe, & Langley, 2001; Edmondson, 2003; Katz-Navon, Naveh, & Stern, 2005; Nembhard, Alexander, Hoff, & Ramanujam, 2009). QCA is a set-theoretic methodology that combines case-based research with Boolean algebra to formalize the comparative assessment of cases in a systematic manner (Ragin, 1987). The methodology is well suited to my research question as it conceives of cases as configurations of responses and allows the identification of configurations of responses that are consistently associated with changes in the clinical outcome of interest.

Following best-practice, this analysis proceeded in two steps (Aversa, Furnari, & Haefliger, 2015). First, I reviewed technical documentation on the reformed procedures and the legislated quality improvement process, reviewed the empirical literature on the experience of hospitals in implementing the dual-pronged reforms in Ontario and other jurisdictions, and interviewed key healthcare and hospital informants. (Lists of documents reviewed, and informants interviewed are in this Chapter's Appendix.) The purpose of this initial step was to understand how hospitals responded to the legislated quality improvement process and the pressures to standardize costs and care practices for the reformed conditions, and how these responses affected clinical outcomes. This allowed me to identify political, technical and cultural responses, which I then incorporated into the QCA, in the second step.

The QCA analysis defined each case as per its membership among multiple sets defined by political, technical and cultural responses—as the predictor variables—and

30-day risk adjusted readmissions for COPD—as the outcome variable. In order to account for varying degrees of membership of cases within configurations of responses, I used the fuzzy-set version of QCA (Fs/QCA) (Ragin, 2000). Using the fuzzy-set approach allows for greater granularity in how set memberships are conceived and, therefore, greater precision in determining the consistency with which configurations are associated with membership in the outcome (Ragin, 2008). As per Fs/QCA, a case can be 'fully in' a set (1.0), 'fully out' of a set (0.0) or anywhere in between, with the crossover point (0.5) representing maximum ambiguity, signifying that it is neither in nor out of a set. The process of calibrating measures and translating them into membership scores is a process that draws from both theoretical and substantive knowledge (Ragin, 2008) gained during the first two steps of the analysis.

Following an abductive process (Tavory & Timmermans, 2014), I complemented the standard fuzzy-set analysis with an analysis of meta-configurations to highlight the core facets of cases that appear to be most important in contributing to the outcome of interest. I also conducted additional interviews with frontline clinicians in Ontario hospitals to uncover what mechanisms may be affecting clinical outcomes under various configurations of causal conditions. This final, third step, conforms with best-practices in configurational theorizing (Furnari, et al., Forthcoming), facilitates the interpretation of taxonomies resulting from the QCA, and provides greater depth of understanding about possible mechanisms underlying different configurations (Miller, 2018).

3.5 Variables

The variables used in the configurational analysis depended on extensive coding of the content of hospital's QIPs. Because QIPs are the product of the legislated quality improvement planning and implementation process constituting a hospital's response to the dual-pronged reforms (Legislative Assembly of Ontario, 2010), they reflect the political, technical and cultural dynamics within the organization.

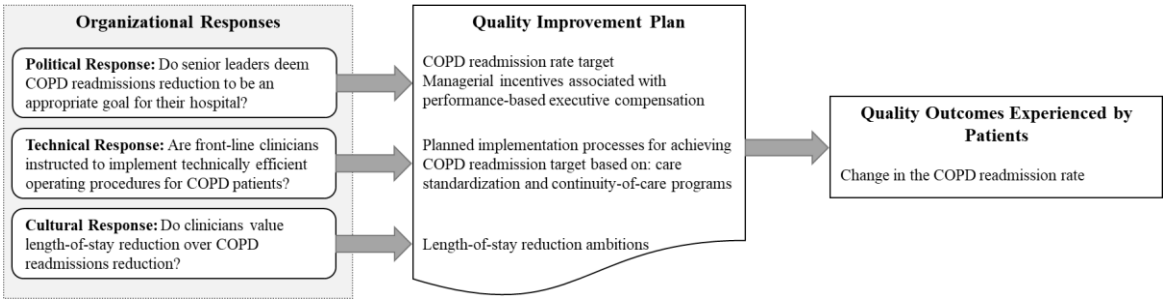

Figure 3: Empirical framework

3.5.1 Outcome: Change in COPD readmissions

The outcome of interest in this study is the change in the incidence rate of COPD patients who are readmitted to a hospital within 30 days of being discharged, on a risk-adjusted basis. Patients are primarily readmitted to a hospital when they experience an acute exacerbation of their symptoms. Therefore, the incidence of readmissions is an important indicator of the effectiveness of a hospital's services in delivering the appropriate care for patients during their hospital stay (Kripalani, Theobald, Anctil, & Vasilevskis, 2014). For fiscal year 2017, the Provincial Advisory Agency (Health Quality Ontario) added 'COPD readmissions' to the list of priority indicators, advocating for its inclusion in hospitals' legislated quality improvement processes (Legislative Assembly of Ontario, 2010). The change in this clinical indicator is operationalized by subtracting a hospital's incidence of risk-adjusted readmissions at the beginning of fiscal year, from the incidence of risk-adjusted readmissions at the end of fiscal year—the year in which a hospital's QIP was to be fully implemented.

As per Fs/QCA methodology, variables are transformed into set membership scores that are calibrated according to three thresholds: 'fully in', cross-over point and 'fully out' (1.0, 0.5, 0.0). The fsqca 3.0 software uses these three anchor points to transform the variables into set membership scores "based on the log odds of full membership" (Ragin, 2006: 17). Because the aim of this study is to identify the configurations of conditions associated with improvement or worsening in the clinical indicator, I set the cross-over point to 0 as representing no change. Moreover, as I wanted the outcome to represent clear improvement ('fully in') and clear worsening ('fully out'),

I set their respective thresholds to -0.06 and 0.06. This ensures that the definitions of 'improvement' and 'worsening' correspond to a clinically significant effect, as per a hospital's year-over-year reduction or increase in the incidence rate of readmissions by 6 patients out of 100. Specifically, only 9 % (4.6 %) of hospitals achieved a reduction (increase) of 0.06 in their readmission rate. Because many patients are admitted for COPD annually in Ontario,[3] these thresholds also represent socially significant effects.

3.5.2 Political response: Do senior leaders deem COPD readmissions reduction to be an appropriate goal for their hospital?

A politically consistent response occurs when a hospital demonstrates extensive agreement that reducing 30-day readmissions for COPD patients is an appropriate goal within the organization, especially at the level of powerful groups. The legislated quality improvement planning and implementation process made hospitals' senior management and board of directors responsible for the establishment of quality improvement targets such as COPD readmissions, and for linking managerial incentives to these targets. Therefore, a hospital's level of political consistency is indicated by a hospital's level of ambition for reducing COPD readmissions and the extent to which it incentivized its senior managers toward these and other closely related goals of the organization. These two conditions indicate whether the goals of these powerful groups are consistent with institutional pressures to reduce COPD readmissions.

3.5.2.1 Strategic ambition

During fiscal year 2017, Ontario hospitals were required to specify within their QIPs whether and the degree to which they sought to improve various clinical indicators – including COPD readmissions – pre-selected by the Provincial Advisory Agency. The

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[3] The volume of index cases for the COPD QBP cohort averaged 22,341 annually over fiscal years 2011-2015 and grew 3 % annually on a compounded basis.

presence and magnitude of a target for the incidence rate of COPD readmissions in these plans represents the expressed strategic ambition of the organization's senior leadership and board members towards improving clinical outcomes for this patient cohort.[4] The importance of strategic-level commitment and support for quality improvement is well established in the literature as management directs resources needed for implementation and promote the involvement of clinical groups (Birken, Lee, Weiner, Chin, & Schaefer, 2015; Klein & Sorra, 1996; Thomas, Clark, & Gioia, 1993; Tsai, et al., 2015; Weiner, Shortell, & Alexander, 1997).

The strategic ambition of a hospital with respect to the improvement of COPD readmissions is operationalized by subtracting a hospital's rate of the incidence of risk-adjusted readmissions in the previous fiscal year, from the targeted rate of incidence specified in its QIP for the current fiscal year. For this condition to represent a substantial ambition towards changing COPD readmission, I set the 'fully in' and 'fully out' thresholds to -0.04 and 0.04, respectively, and the cross-over point to 0. Only 6.5 % (1.5 %) of hospitals had a COPD readmission target lower (higher) than -0.04 (0.04). If a hospital opted not to include a COPD readmission target in its QIP, I equated its ambition to a 0.04 target, placing it in the subset of cases that are 'fully out'.

3.5.2.2 Managerial incentives

As part of the legislated process, most hospitals[5] were required to link executive compensation to the achievement of targets set out in their QIPs. Linking executive compensation to COPD readmissions and/or other related clinical processes and outcomes provides a financial incentive as well as a signal to managers that these issues are relatively important. However, linking compensation to competing processes and

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[4] As per legislation, hospitals' senior leaders, specifically their respective board of directors chairholder, quality committee chairholder and chief executive officer, were prescriptively responsible for overseeing, developing and executing Quality Improvement Plans (Legislative Assembly of Ontario, 2010).

[5] A competing legislation on public sector organizations precluded some hospitals from creating an executive compensation link.

outcomes that are either unrelated or potentially adversely related to COPD readmissions has the opposite effect as it creates misalignment (Hambrick, Finkelstein, & Mooney, 2005). Therefore, the breadth of quality improvement targets in a hospital's executive compensation plan provides an indication of the degree of managerial incentives or disincentives toward improving COPD readmissions and furthering the implementation of best clinical practices and pathways for COPD patients.

The incentives of managers vis-à-vis improvement in COPD readmissions is operationalized through a point system that differentiates between hospitals with and without an explicit link between their QIP and executive compensation plan. This approach reasonably assumes that hospitals without such a link influence managerial alignment to a lesser degree. Given the importance of senior leaders in influencing organizational change (Adler et al., 2003; Merlino & Raman, 2013), the alignment of managerial incentivizes with the improvement processes and outcomes related to the COPD cohort should have a favourable effect on improvement in readmissions. Managerial incentives (MI) were operationalized as follows. For hospitals with an explicit link between executive compensation and targets in their QIP:

$$MI = 0.49 + 0.25X + 0.1\ (\#discharge\ measures\ in\ compensation\ plan) - 0.5\ (\#efficiency\ measures\ in\ compensation\ plan)$$

For hospitals without an explicit link between executive compensation and targets in their QIP:

$$MI = 0.49 + 0.05X + 0.02\ (\#discharge\ measures\ in\ Quality\ Improvement\ Plan) - 0.1\ (\#efficiency\ measures\ in\ Quality\ Improvement\ Plan)$$

In the above two formulas, X is assigned a value of 1 if a COPD readmissions target is present in the compensation plan or QIP, respectively. The discharge measures covered in the coding of the 'managerial incentive' variable include the following: the provision of patient oriented discharge summaries (PODS); the arrangement of a follow-up visit with the patient's primary care physician; the reconciliation of a patient's

medication upon discharge, and; the follow-up phone calls with patients within a few days following their discharge. The efficiency measures covered in the coding of the 'managerial incentive' variable include the following: reduction of acute care length of stay; reduction of patients in alternative level of care beds, and; the hospital's total margin. To arrive at the final 'managerial incentive' variable, a floor of 0 and ceiling of 1 were imposed on the total score. The 'managerial incentive' variable did not require calibration.

3.5.3 Technical response: Are frontline clinicians instructed to implement technically efficient operating procedures for COPD patients?

A technically efficient response occurs when a hospital demonstrates extensive implementation of technically appropriate clinical standards such as order sets, clinical pathways, clinical handbooks and discharge planning for the COPD condition. In comparison, a technically inefficient response occurs when a hospital does not demonstrate extensive implementation of these standards whilst implementing technically inefficient continuity of care programs, which, as described below, were highly overburdened and therefore inappropriate practices by which to pursue COPD readmissions reduction.

3.5.3.1 Care standardization

The COPD clinical handbooks consist in a compendium of "clinical best practices" for hospitals to: assess and stratify COPD patients who present in the emergency department; investigate and stabilize COPD patients' condition once admitted in inpatient care, including through the use of diagnostic tests, pharmacology, ventilation or surgical intervention, and; prepare patients and caregivers for patients' eventual discharge through individualized education, medical reconciliation and action planning, as well as facilitating patients' transition to other healthcare providers such as primary care and specialty clinics (Health Quality Ontario & Ministry of Health and Long-Term Care, 2013; Health Quality Ontario & Ministry of Health and Long-Term Care, 2015).

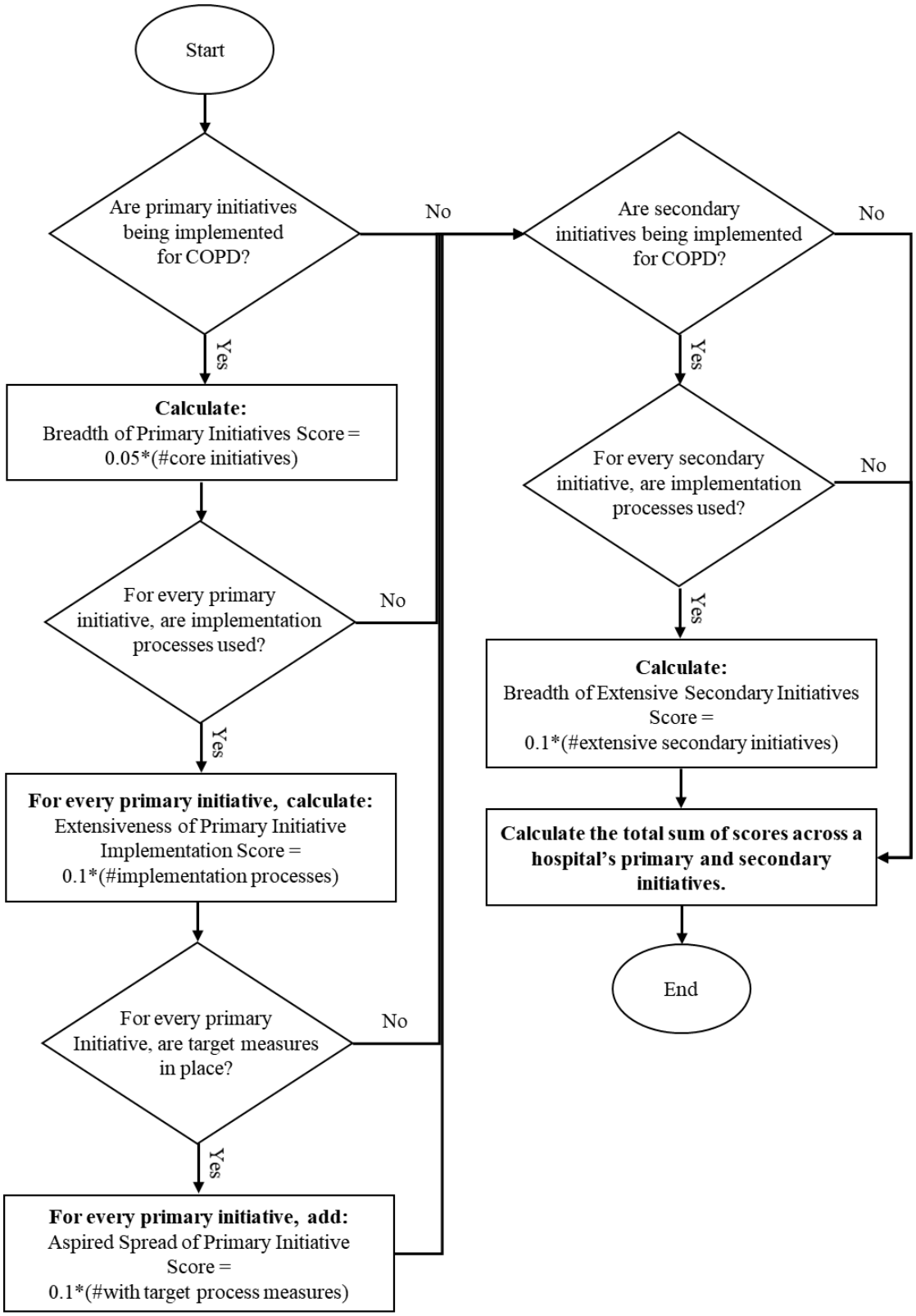

Figure 4: Operationalization of the care standardization variable

In order to understand how Ontario hospitals addressed the implementation of these clinical best-practices and pathways, I conducted an analysis of QIPs. I identified the hospitals with a 30-day COPD readmission rate target in their QIP and reviewed the initiatives they planned to implement in order to achieve this target, by end of fiscal year. I found that these hospitals primarily sought to standardize their care practices through the implementation of order sets, clinical pathways, the provincial clinical handbooks themselves, and discharge planning procedures. Because these care standardization initiatives can be used to pursue either cost-reduction or improvement in clinical services and outcomes (Bright, et al., 2012; Rotter, et al., 2010; Gonçalves-Bradley, Lannin, Clemson, Cameron, & Shepperd, 2016), I did not have a priori directional expectations concerning their effect on clinical outcomes as their effect should depend on the motivation behind their use.

To capture these initiatives, I operationalized hospitals' pursuit of care standardization through a point system, which includes primary and secondary categories, summarized in Figure 4. The primary category includes initiatives seeking to implement order sets, clinical pathways, the provincial clinical handbooks themselves, and discharge planning procedures. The secondary category includes other initiatives such as medication reconciliation, patient follow-up appointments, patient follow-up phone calls, strict data provision to physicians and the provision of discharge summaries to patients. The operationalization process for the care standardization variable sought to account for the breadth of care standardization initiatives, the extensiveness of their implementation, and their aspired level of uptake by clinicians. In order to assess the extensiveness of implementation, I considered whether they employed the following implementation processes: clinician engagement, patient engagement, clinical standardization, monitoring of conformance, chart reviews/audits, monitoring/evaluation of progress and studying the literature. These categories were based on an adaptation of the Plan-Do-Study-Act framework. I also assessed whether implementation processes targets were put in place to establish their aspired level of uptake by clinicians or patients by end of fiscal year. These assessments were then given scores as summarized in Figure 4. Finally, a hospital's total sum of scores was calculated to arrive at the final 'care standardization' variable, upon which a ceiling of 1 was imposed. This variable did not require further calibration.

3.5.3.2 Continuity-of-care programs

The COPD clinical handbooks published in 2015 contains a compendium of "clinical best practices" compiled through literature reviews and expert opinion in consideration of supporting evidence on their effectiveness, reflecting the "best patient care possible, regardless of cost or barriers to access" (Health Quality Ontario & Ministry of Health and Long-Term Care, 2015: 8). As such they are conceived as an "ideal scenario" for patients' acute and post-acute episodes of care. As the clinical handbooks explicitly caution, this implies that hospitals ought to consider that some practical challenges exist to their implementation, especially in regards to the impractical nature of programs affected by "limitations in the continuum of care capacity across many parts of the province" (Health Quality Ontario & Ministry of Health and Long-Term Care, 2015: 8). To address this chasm, I differentiated continuity-of-care programs from other clinical best-practices described in the clinical handbooks, as several informants cautioned that care practices geared towards these systemic innovations could lead to adverse clinical outcomes. Informants cautioned that the Regional Health Authority's continuity-of-care programs were overburdened even though they had been championed as promoting the patient's continuity-of-care in the community. While these programs were theoretically sound, they were highly constrained owing to limitations in the broader health system. As such, a hospital's reliance on these programs could be detrimental to a patient's condition. Thus, a tight coupling to pressures to implement continuity-of-care programs was expected to be associated with an adverse change (worsening) in readmissions. A hospital's implementation of continuity-of-care programs was operationalized through the following point system. If a hospital's improvement initiatives included the implementation of the Regional Health Authority's continuity-of-care programs for COPD patients specifically, it received a 1. Otherwise, hospitals was scored 0.6 for having an implementation process linked to the Regional Health Authority's continuity-of-care programs as part of COPD improvement initiatives that were not geared to the spread of continuity-of-care programs. Hospitals not implementing continuity-of-care programs for COPD patients whatsoever received a 0.

3.5.4 Cultural response: Do clinicians value length-of-stay reduction over COPD readmissions reduction?

A culturally consistent response occurs when a hospital demonstrates that the values and beliefs of clinicians align with the reduction of 30-day readmissions, as opposed to cost reduction. The Health System Funding Reform put in place incentives for hospitals to pursue cost-reduction by shortening the length-of-stay of COPD patients. The extent to which clinicians value the shortening of length-of-stay relative to improving readmissions for COPD patients defines what roles, responsibilities and behaviours are deemed appropriate while clinicians care for and discharge patients.

3.5.4.1 Length-of-stay reduction

To assess whether clinicians pursued cost reduction, I considered whether they adopted an initiative to reduce COPD patients' length of stay. Ontario hospitals have primarily responded to the province's dual-pronged reform by pursuing cost efficiencies through the reduction of length of stay, given that the reform precluded incentives to improve the quality of clinical services and their outcomes by implementing best clinical practices and pathways (Palmer, et al., 2018; Palmer, et al., 2018). Pressures to improve the quality of clinical services and their outcomes have come primarily from normative expectations stemming from the legislated quality improvement process (Legislative Assembly of Ontario, 2010), which encouraged the implementation of the reform's clinical handbooks in fiscal 2017. A common perception among informants was that the pursuit of cost reduction tends to be at odds with clinical outcomes, which is a position that is also supported empirically in the Ontario jurisdiction and in other health system, globally (Chen, et al., 2010; Jha, Orav, Dobson, Book, & Epstein, 2009; Stukel, et al., 2012). Thus, a tight coupling to the cost-reduction pressure of the reform is expected to produce operational consequences that undermine the comprehensive implementation of recommended clinical best-practices and pathways for COPD patients, resulting in an adverse change (worsening) in readmissions. Length-of-stay reduction was operationalized with a binary variable that takes on the value of 1 if a hospital's

improvement initiatives included the reduction of length-of-stay for COPD patients, and 0 otherwise.

3.5.5 Regional conditions: Are patients experiencing improvements in health services during their post-acute episode of care?

3.5.5.1 Systemic integration

Given that COPD is a chronic condition whose care depends on a well integrated health system, there is a component to clinical outcomes that depends on patients' healthcare experiences in the broader health system, after discharge from an acute episode of care in hospitals (Casas, et al., 2018). In a well integrated health system, a discharged patient should experience seamless and timely delivery of services consistent with the patient's medical and personal needs (Haggerty, et al., 2003). However, such systemic integration is challenging because the barriers to coordination among healthcare providers are many (Bodenheimer, 2008). And in the absence of an integrated system, patients may be readmitted because of a lack of medical services in the broader health system. My interviews with informants suggested that COPD patients' clinical outcomes, once discharged, were most strongly associated with their access to an appropriate specialist for their condition, whom they could visit within a relatively short timeframe after discharge. Specialists for the COPD condition include internal medicine and respiratory disease clinicians (specialty codes 13 and 47 as per Royal College of Physicians and Surgeons of Canada). Systemic integration was operationalized by subtracting the rate of COPD patients visiting a specialist within seven days of discharge during the previous fiscal year from the rate of the current fiscal year. As systemic integration is a relatively slow process, I set the 'fully in' and 'fully out' thresholds to 0.04 and -0.04, respectively, and the cross-over point to 0.

3.5.5.2 Bundled-care pilots

Finally, the province selected six cross-provider healthcare teams to pilot bundled funding models to allow acute and post-acute care providers to coordinate more effectively over a patient's episodes of care, regardless of who is responsible for providing care or in what setting. These pilots allowed select hospitals, community care providers, home care providers, family physicians and other providers to receive project management funding to further the integration of care for patients with various post-acute care needs. These pilots were established to further the objective of integrated funding, under which healthcare providers are subject to a single payment to cover a patient's healthcare needs. I expected that hospitals implementing the bundled-care pilot would experience improvement in clinical outcomes for COPD, as the integration of healthcare services across providers should help slow the progression of COPD and prevent acute exacerbations of patient's conditions during the initial 30 days following discharge. Bundled-care pilots was operationalized as follows. Hospitals selected as part of a cross-provider pilot team were given a 1 if their pilot specifically targeted COPD patients, 0.6 if it targeted a broader range of patients with post-acute care needs, but not specifically those with COPD, and 0 if it exclusively targeted patients that do not have COPD. Hospitals not selected as part of cross-provider pilot teams were also given a 0.

3.6 Results

Table 6 presents the configurations of responses sufficient for improved and worsened clinical outcomes. The unique coverage for all but one configuration confirms that most of these configurations offer a unique contribution to the understanding of changes in clinical outcomes as a result of hospitals' divergent responses to institutional pressures to simultaneously reduce costs while improving clinical services and outcomes for COPD. Moreover, each configuration has high consistency levels (consistency ≥.86). The improved clinical outcomes solution has an overall solution consistency of .93, with an overall solution coverage of .33. The worsened clinical outcomes solution has an overall solution consistency of .91, with an overall solution coverage of .57. In interpreting these results, I draw special attention to the necessity of conditions, the

complementarity of conditions, the substitutability of conditions and the asymmetrical effect of conditions.

Table 6: Configurations sufficient for change in clinical outcomes

	Improved clinical outcomes solutions				Worsened clinical outcomes solutions								
	1	2a	2b	3	Ia	Ib	Ic	Id	II	IIIa	IIIb	IV	V
Political response													
Strategic Ambition (SA)	●	●	●	●			⊗	⊗	⊗		⊗	⊗	⊗
Managerial Incentives (MI)	●		•	⊗		⊗		⊗		⊗	⊗	●	⊗
Technical response													
Care Standardization (CS)	●	•			•	⊗			●	⊗	⊗		⊗
Continuity-of-care Programs (CP)	⊗	•	•	⊗	•		•		⊗	●	●	⊗	⊗
Cultural response													
Length-of stay Reduction (LR)	⊗	⊗	⊗	⊗	●	●	●	●					
Regional factors													
Systemic integration (SI)				●		⊗	⊗			⊗		●	●
Bundled-care Pilots (BP)		●	●					⊗	⊗	⊗	⊗		●
Consistency	.95	.86	.90	.95	1	1	.95	1	.91	.93	.99	.91	.98
Raw Coverage	.17	.04	.04	.21	.04	.03	.03	.04	.14	.11	.08	.26	.06
Unique Coverage	.08	.01	.01	.13	.02	.02	.01	.01	.05	.04	.01	.18	.06
Overall Solution Consistency	.93				.91								
Overall Solution Coverage	.33				.57								

Notes: Central conditions are represented by ● (presence) and ⊗ (absence); contributing conditions by • (presence) and ⊗ (absence). Configurations 2a-b, Ia-c and IIIa-b are neutral permutations that share the same central conditions and only differ in their contributing conditions (see Fiss, 2011). A minimum threshold of one case per configuration was applied. Minimum thresholds of .85 raw consistency and .7 PRI consistency yielded the following consistency cutoffs for the improved and worsened clinical outcomes solutions, respectively: raw consistency = .89, .90; PRI consistency = .76, .73.

Looking across the improved and worsened clinical outcome solutions, the importance of two conditions, ‘strategic ambition’ and ‘length-of-stay reduction’, is apparent. All configurations in the improved clinical outcomes solution have ‘strategic ambition’ in the absence of ‘length-of-stay reduction’ (configurations 1-3), and most configurations in the worsened clinical outcomes solution have the absence of ‘strategic ambition’ (configurations Ic-d, II, IIIb, IV, V) or the presence of ‘length-of-stay reduction’ (configurations I). This underscores the necessary but insufficient nature of the presence of ‘strategic ambition’ jointly with the absence of ‘length-of-stay reduction’ for improvement in clinical outcomes. It also underscores the necessity of the absence of ‘strategic ambition’ for worsening in clinical outcomes, unless there is ‘length-of-stay

reduction'. This supports the notion that 'length-of-stay reduction' cannot be implemented simultaneously with efforts to improve the quality of clinical services and outcomes, lest significant internal inconsistencies ensue, subverting clinical practices and outcomes. Thus, the adoption of an initiative to reduce length-of-stay may subvert best clinical practices and pathways associated with the maintenance and improvement of clinical services and outcomes. *Subversive* implementation is a relatively novel finding in the literature on organizational responses to institutional complexity (Greenwood, Raynard, Kodeith, & Micelotta, 2011).

Additionally, the improved clinical outcomes solution suggests that 'strategic ambition' and the absence of 'length-of-stay reduction' should be complemented by either 'care standardization' (configurations 1, 2a), 'bundled-care pilots' (configurations 2a-b) or 'systemic integration' (configuration 3). Under such conditions, the extensiveness of these practices contributes to furthering the improvement of clinical outcomes, through an amelioration of the clinical services that patients experience both within and outside of hospitals during their acute and post-acute episodes of care. The joint presence of 'strategic ambition' with conditions at the cultural, technical or regional levels ensures some alignment across stakeholders within and outside of the organization. Literature has shown that a minimal level of alignment between political, technical and cultural dynamics is needed to achieve change in clinical services and outcomes (Adler, et al., 2003; Denis, Lamothe, & Langley, 2001; Fitzgerald, Ferlie, McGivern, & Buchanan, 2013). Thus, *substantial* implementation is achieved when goal-aligned practices such as those associated with 'care standardization', 'systemic integration' and 'bundled-care pilots' are planned and executed alongside hospital leaders' commitments to improve clinical services and outcomes (Pannick, Sevdalis, & Athanasiou, 2015). This finding confirms pre-existing theories on the role of leaders in practice implementation and quality improvement (Klein & Sorra, 1996). Further, these findings also demonstrate that these conditions ('care standardization', 'systemic integration' and 'bundled-care pilots') act as substitutes. Improved clinical outcomes only occurs when at least one of them is present. And the presence of one makes up for the absence of the other. However, this also implies that when there is lack of progress in regional factors, hospitals seeking to improve patients' clinical outcomes must necessarily focus on more extensively

implementing best clinical practices and pathways during COPD patients' acute episode of care so as to ameliorate the quality of clinical services these patients receive prior to discharge, within the walls of the hospital.

Additionally, there is some evidence to support the mythical and symbolic nature of 'continuity-of-care programs'. Hospitals implementing 'continuity-of-care programs', in the absence of 'care standardization' or 'strategic ambition' were associated with a worsening in clinical outcomes. There are two possible explanations for this finding. Firstly, some hospitals may succumb to the rhetoric of success (Zbaracki, 1998) promulgated by other hospitals through the legislated quality improvement process, industry conferences, publications from healthcare agencies, and influential stakeholders such as consultants and public servants. In other words, they may be implementing these programs in good faith, unaware of their technical inefficiencies, thereby encouraging their clinicians to enroll patients in programs that are less accessible or not as effective as they were initially led to believe. Secondly, they may be implementing continuity-of-care programs knowing that their effectiveness is limited, with the aim of benefiting from these programs' symbolic association to rationality and progress (Abrahamson, 1996). Such a response may be motivated by hospitals' objective to avoid a perceived threat of delegitimization, rather than the pursuit of technical gain (Kennedy & Fiss, 2009). Thus, while they may lack 'strategic ambition' to make actual changes towards improving clinical services and outcomes, they can still conform with external expectations to some degree by adopting legitimated clinical practices (Westphal, Gulati, & Shortell, 1997) such as 'continuity-of-care programs'. This novel form of *symbolic* implementation has recently emerged in the literature on organizational responses to institutional complexity (Bromley & Powell, 2012).

Lastly, findings show that the effect of 'care standardization' on clinical outcomes is asymmetrical, depending on whether strategic ambition is present (configurations 1, 2a) or absent (configuration II). The standardization of care practices through the implementation of order-sets, clinical pathways, the provincial clinical handbook or discharge planning can be motivated by either an objective to ameliorate the quality of clinical services in order to improve outcomes, or an objective to reduce-costs by

decreasing treatment intensity and length-of-stay. When implementing standardization of care initiatives, hospitals are attempting to establish a certain standard of care within their organization and reduce practice variation around that standard once it has been implemented by clinicians. A standard of care can be defined so as to move clinical practices closer to a clinical ideal of clinical quality, regardless of costs, or closer to an administrative ideal of cost-containment, at the expense clinical quality. Therefore, 'standardization of care' has an asymmetrical relationship to clinical outcomes, through 'strategic ambition'. When standard procedures such as order-sets, clinical pathways, the provincial clinical handbook and discharge planning are implemented jointly with 'strategic ambition', an amelioration of clinical services ensues, resulting in improved clinical outcomes. Conversely, when these standard procedures are implemented jointly with the absence of 'strategic ambition', a deterioration in clinical services ensues, resulting in worsened clinical outcomes. Thus, the implementation of standard procedures in the absence of strategic ambition toward improving the focal clinical outcome may have truncated the use of best clinical practices and pathways, resulting in a deterioration of clinical services. *Superficial* implementation is a relatively novel finding in the literature on organizational responses to institutional complexity (Greenwood, Raynard, Kodeith, & Micelotta, 2011).

Taken together, these findings suggest that four essential types of organizational response configurations account for a significant proportion of changes in clinical outcomes. Tables 7 and 8 show the results of a supplementary meta-configurational analysis of the organizational response archetypes. Substantial implementation (SA ∩ CS ∩ ~LR) accounts for 35 percent of the cases that experienced improvements in their clinical outcomes, with a consistency score of .88. Superficial implementation (~SA ∩ CS ∩ ~LR) accounts for 24 percent of the cases that experienced worsened clinical outcomes, with a consistency score of .95. Subversive implementation (LR) accounts for 9 percent of the cases that experienced worsened clinical outcomes, with a consistency score of .76. Symbolic implementation accounts for 17 percent of the cases that experienced worsened clinical outcomes, with a consistency score of .80.

Table 7: Meta-configurations sufficient for improved clinical outcomes

Meta-configurations	Raw coverage	Raw consistency	PRI consistency	SYM consistency	Constituent solutions
Substantial implementation					
SA ∩ CS ∩ ~LR	.35	.88	.77	.78	
SA ∩ MI ∩ CS ∩ ~LR	.24	.91	.80	.82	1, 2a
SA ∩ MI ∩ CS ∩ ~CP ∩~LR	.17	.94	.87	.90	

Table 8: Meta-configurations sufficient for worsened clinical outcomes

Meta-configurations	Raw coverage	Raw consistency	PRI consistency	SYM consistency	Constituent solutions
Superficial implementation					
~SA ∩ CS ∩ ~LR	.24	.95	.80	.85	II
~SA ∩ ~MI ∩ CS ∩ ~LR	.19	.95	.83	.83	
Subversive implementation					
LR	.09	.76	.68	1	
SA ∩ LR	.06	.89	.83	1	Ia-d
SA ∩ MI ∩ LR	.04	1	1	1	
CS ∩ LR	.05	1	1	1	
Symbolic implementation					
~CS ∩ CP	.17	.80	.66	.69	
~CS ∩ CP ∩ ~LR	.15	.77	.63	.66	IIIa-b
SA ∩ ~CS ∩ CP	.13	.78	.55	.55	
SA ∩ MI ∩ ~CS ∩ CP	.10	.73	.44	.44	

3.7 Discussion

The Fs/QCA results showed that political (in)consistency, technical (in)efficiency and cultural (in)consistency interact in configurations to affect clinical outcomes. This section

develops mechanisms of organizational change associated with each meta-configuration uncovered through the Fs/QCA. Specifically, I elaborate how each organizational response configuration has varying implication for the implementation of best clinical practices and pathways for COPD patients.

3.7.1 Clinical best-practices and pathways for COPD

Figure 5 summarizes the clinical best-practices and pathways contained in the Health Ministry of Ontario's COPD clinical handbook. These clinical best-practices and pathways are the primary determinant of clinical outcomes during the acute episode of care for COPD patients, and span the entire duration of a patient's stay in hospital, from the time of inpatient admission from the emergency room up until discharge from hospital.

As per the COPD clinical handbook, COPD patients go through four or five of the following phases of clinical care, depending upon the severity of their condition. The phases include: an admission phase, followed by; a stabilization phase for severely ill patients whom require intensive care (non-invasive or invasive ventilation); a stabilization phase for moderately ill patients whom require usual medical care; a maintenance phase, and; a discharge phase. As per the COPD clinical handbook, patients whose condition is severe upon admission go through all five phases, while patients whose condition is moderate upon admission go through four of the five phases as they do not need ventilation and will therefore sidestep intensive medical care (stabilization phase for severe conditions). The phases are described in further detail below.

- **Admission phase:** the patient is assessed in the emergency department and is admitted for inpatient care. Depending upon the results of the investigations ordered during the patient's visit in the emergency room, the patient will be admitted under either intensive care (for severe conditions) or usual medical care (for moderate conditions).
- **Intensive medical care phase:** when the patient's condition is understood to be severe, they are given what is referred to as an intensive level of medical care. The patient will first be given non-invasive ventilation. If the patient is unresponsive, they will be given mechanical ventilation. Once the patient is sufficiently stabilized, they will enter the subsequent phase of stabilization designed for moderately ill patients.

- **Usual medical care phase:** when the patient's condition is understood to be moderate, they are given what is referred to as a usual level of medical care. They will be given medications (e.g. short-acting bronchodilators, corticosteroids, antibiotics) and oxygen as needed. If appropriate, they will undertake lung hygiene therapy. They will also receive physical, occupational, respiratory and speech therapy as needed.
- **Maintenance phase:** once the patient is sufficiently stabilized, they will enter the maintenance phase. In the maintenance phase, the patient continues to take medication, ambulate and undergo physical, occupational, respiratory and speech therapy as needed. The patient is also weaned off of oxygen. These practices are undertaken with the intent of re-establishing the patient's baseline functioning, including baseline lung function, mobility and cognition.
- **Discharge phase:** once baseline performance is achieved the patient is discharged.

Throughout the various phases of a patient's hospital stay, the clinicians perform three types of practices. They perform assessment practices to diagnose the patient's condition and monitor vital signs and other clinical indicators to measure the patient's progress. They perform stabilization practices to improve lung function. They also perform discharge preparation practices to ready the patient for discharge by: teaching the patient on the proper use of medication, encouraging the patient to ambulate so that they may regain their mobility; addressing the speech, occupational, physical and respiratory therapy needs the patient might have so that they may regain their ability to undertake activities of daily living (e.g. cooking, eating, walking, communicating, dressing-up); educating the patient and their caregivers (family and friends) on discharge plans and self-management issues so that the patient may maintain their condition while out in the community once discharged, and; facilitating the transition process by, for example, setting up appointments with their specialist or primary care physician, enrolling them in pulmonary rehabilitation clinics, enrolling them into home care or home oxygen services, etc.

	Admission Phase	Intensive Medical Care Phase	Usual Medical Care Phase	Maintenance Phase	Discharge Phase
Assessment Practices	Check vital signs, including cognition, blood-O2 saturation, sputum production, sings of hypoventilation. Perform a physical examination. Check patient history. Reconcile medication. Conduct baseline blood work. If low oxygen saturation, check ABGs. Consider ECG and chest x-ray. If infection, draw blood cultures. Assess level of care required based on clinical judgement.	Monitor the patient's condition, including respiratory rate, pulse, blood pressure, temperature, dyspnea, oxygen saturation.	Monitor the patient's condition, including respiratory rate, pulse, blood pressure, temperature, dyspnea, oxygen saturation.	Assess patient's cognition, ambulation, dyspnea, and ability to undertake ADLs with minimal assistance. Chest assessment (breathing sounds and productive cough). Conduct chest x-ray if not improving.	Perform full clinical assessment (including ABG levels, chest x-ray). Perform spirometry if no results on record. Assess severity of symptoms and other risk factors.
Stabilization Practices		Non-invasive positive pressure ventilation used as first-line treatment. If unsuccessful, invasive mechanical ventilation may be used. Patients unresponsive to ventilation receive palliative care.	Short-acting bronchodilators delivered with puffers. Corticosteroids delivered orally or through IV. Antibiotics provided if there is infection. Delivery of oxygen to maintain 90 % saturation. Initiate lung hygiene physical therapy if appropriate.	Wean the patient from oxygen to titrate back to room air or baseline (pre-admission) oxygen requirements. Continuation of medication.	
Discharge Preparation Practices	Patient teaching begins on topics that include nutrition, medications, smoking cessation and ambulation.		Early ambulation therapy. Begin occupational, physical, respiratory, speech therapy as needed. Social work consultation. Begin discharge planning, including referral to pulmonary rehabilitation. May enroll the patient in CCAC/LHIN programs.	Increase ambulation. Continuation of therapy and social work. Order home oxygen if needed. Ensure patient's proper use of inhalers/ medication. Reinforce education (nutrition, fluid intake, diet supplements, smoking cessation). Review discharge plans with patient.	Review, reconciliation and prescription of patient's medication. Patient demonstrates knowledge of discharge plan and self-management plan. Establish a follow-up appointment with PCP or specialist. Arrange home care services, OT visits at home, lung therapy for disabled patients.

Time

Figure 5: Best clinical practices and pathways for managing COPD patients in hospitals

As the Fs/QCA analysis suggests, the extensiveness with which frontline clinicians adhered to the full implementation of these clinical best-practices and pathways depended upon their hospital's political, cultural and technical responses to the conflicting pressures for cost reduction and clinical quality improvement. In the following, I discuss how four organizational response configurations created different organizational change dynamics which either increased or decreased the extensiveness to which best clinical practices and pathways were implemented for COPD patients, thus affecting the clinical outcomes experienced by these patients.

3.7.2 Substantial implementation of best clinical practices and pathways for COPD

Given the challenges inherent in achieving organizational change and clinical quality improvement in hospitals (Nembhard, Alexander, Hoff, & Ramanujam, 2009), the *substantial implementation* of best clinical practices and pathways requires the alignment

of administrators, physicians and nurses (Adler P. S., et al., 2003; Denis, Lamothe, & Langley, 2001) with the organizational goal of improving clinical services and outcomes for COPD patients.

When a hospital is politically aligned with the goal improving clinical quality, frontline clinicians are more likely to experience a favourable implementation climate, where administrators provide the needed financial and human resources (Øvretveit, Scott, Rundall, Shortell, & Brommels, 2007), incentives, rewards, recognition (Dixon-Woods, Bosk, Aveling, Goeschel, & Pronovost, 2011), strategic sensemaking (Thomas, Clark, & Gioia, 1993), and other leadership functions such as priority setting, monitoring and the communication of progress regarding desired implementation processes and performance outcomes (Tsai, et al., 2015). Further, when a hospital is culturally aligned with the goal improving clinical quality the implementation climate values that outcome over the competing practices and outcomes of cost reduction, minimizing conflicts during the course of implementation (Klein & Sorra, 1996).

Therefore, under conditions of political and cultural consistency, senior administrators and clinical leaders are likely to incentivize middle-managers toward the goal of clinical quality improvement and provide the resources they need to further the implementation of best clinical practices and pathways (Birken, Lee, Weiner, Chin, & Schaefer, 2015; Floyd & Wooldridge, 1997). Additionally, middle managers will be more likely to be given discretion to accommodate the particular needs of frontline clinicians as they seek to further the improvement of clinical services and outcomes (Chuang, Jason, & Morgan, 2011). The greater resources and discretion made available to middle-managers will allow them to ensure that their hospitals' planned clinical quality improvement initiatives align with the daily realities of clinical units (Dutton, Ashford, O'Neil, & Lawrence, 2001). For these reasons, scholars have demonstrated that senior administrative and clinical leaders' commitment to clinical quality improvement goals is associated with greater levels of involvement by middle managers (Birken, Lee, Weiner, Chin, & Schaefer, 2015), leading to greater implementation of clinical best practice and pathways by clinicians (Haider, Fernandez-Ortiz, & de Pablos Heredero, 2017; Weiner, Shortell, & Alexander, 1997).

When political consistency aligns with organizational plans to extensively implement technically efficient operating procedures (clinical standards) and there is cultural consistency among operational actors (clinicians), then best clinical practices and pathways are likely to be substantially implemented, resulting in patients COPD experiencing an improvement in clinical outcomes (Figure 6). Because the hospitals' powerful actors agree that reducing COPD readmissions is an appropriate goal for the organization, there are resources available to facilitate clinicians' implementation of best clinical practices and pathways for COPD. Therefore, it is more likely that nurses and allied health professionals (e.g. occupational, physical, speech and respiratory therapists) will be more experienced/higher paid or have a lower case load (fewer patients). This should enable them to more fully implement the clinical best-practices and pathways contained in the Health Ministry's COPD clinical handbooks.

Moreover, because clinicians do not value length-of-stay reduction over the reduction in readmissions for COPD patients, they should be more likely to be accommodating of COPD patients' various needs once their lung function has been stabilized so that to ensure that these patients are adequately prepared for their discharge. They might therefore be willing to extend a patient's hospital stay so as to reduce their likelihood of being readmitted following discharge. This can include ensuring that their cognitive function and mobility meets or exceeds their pre-admission baseline. It can also include extending a COPD patient's hospital stay to ensure that they have had the time to fully absorb the education given to them pertaining to their discharge plan or self-management issues so that they can more appropriately manage their condition in their community. Finally, it can also include extending a patient's stay so as to ensure that the healthcare services they require will be in place once they are discharged home. These services can include home oxygen, home care nursing and occupational therapy visits. All of these practices help reduce a COPD patient's likelihood of being readmitted.

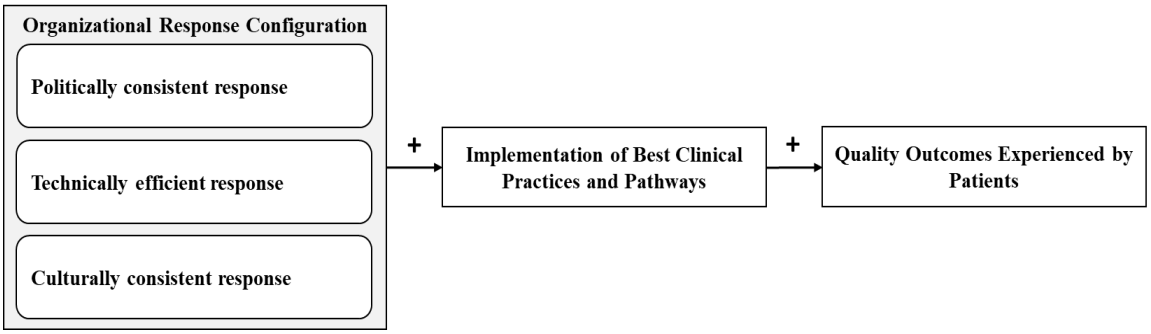

Figure 6: Substantial implementation occurs when there is political consistency, technical efficiency and cultural consistency

The dynamics associated with substantial implementation have already been established by management scholars who have shown that furthering the goal of clinical quality improvement requires the support of administrators and clinicians from various hierarchical levels of the organization, from senior leadership to middle-management and frontline clinical staff (Buchanan, Addicott, Fitzgerald, Ferlie, & Baeza, 2007; D'Innocenzo, Luciano, Mathieu, Maynard, & Chen, 2016; Denis, Lamothe, & Langley, 2001; Fitzgerald, Ferlie, McGivern, & Buchanan, 2013). By using a configurational lens, the findings demonstrate how political consistency, technical efficiency and cultural consistency combine to affect favourable changes in clinical practices and outcomes. Below, I turn to the less understood mechanisms of adverse organizational change, which arise as a result of a misalignment at the level of either the political, technical and cultural responses of hospitals. I discuss the adverse mechanisms of organizational change involved in each of the remaining three organizational response configurations.

3.7.3 Superficial implementation of best clinical practices and pathways

Political inconsistency occurs when powerful groups (senior administrators, medical leaders and the board of directors) do not agree about the appropriateness of improving clinical quality and outcomes for COPD patients. Under such circumstances, senior administrative and clinical leaders are less likely to provide the resources middle-

managers and frontline clinicians need to further the implementation of best clinical practices and pathways, and thus the clinical outcomes experienced by COPD patients.

When the culture of frontline clinicians aligns with the goals of implementing best-clinical practices and pathways, but powerful groups do not perceive COPD readmission reduction as an appropriate goal for their organization, the *superficial implementation* of best clinical practices and pathways is likely to occur. Conceptually, this represents an organizational response configuration of political inconsistency, culturally consistency and technical efficiency. Under such conditions, clinicians' attempts at incorporating technically efficient operating procedures (clinical standards) may be stymied by the lack of high-level support and resources. The lack of political support may be reflected in the hospital's drive for cost containment through a higher reliance on lower-paid/lesser-experienced clinicians and/or a higher workload for clinicians caring for COPD patients. This leads clinicians to unwittingly incorporate the standard in a manner that puts relatively greater emphasis on cost-reduction instead of improvement in clinical quality and outcomes for COPD patients.

In their ideal form, clinical standards such as clinical pathways, order sets, discharge planning procedures or the Health Ministry's clinical handbooks themselves would normally lead to extensive implementation of best-clinical practices and pathways. However, the lack of political support and resources for reducing COPD readmissions likely causes clinicians to incorporate the clinical standard in its one-sided form by superficially implementing clinical best-practices that require a level of clinical service that exceeds that which hospital's relatively overextended or lesser-qualified clinical staff and personnel can provide. This results in a dampening of best-clinical practices and pathways used throughout all phases of a COPD patient's stay in hospital (Table 9).

Table 9: Superficial implementation during phases of COPD patients' stay in hospital

	Implementation of clinical practices and pathways for COPD patients
Admission	• Because the emergency department's admission process may rely on nurses with a high workload, as opposed to dedicated physicians, a

Phase	COPD patient's condition may not be thoroughly assessed. The appropriateness of their current medications or dosages thereof may not be as thoroughly reviewed. Consequently, the patient's care plan developed upon admission may not be appropriate for the patient's condition. • Opportunities for patient teaching as pertaining to nutrition, medication usage, smoking cessation and ambulation may be ignored.
Intensive and Usual Medical Care Phases	• Patients with an inappropriate care plan may receive incorrect dosages of medications (bronchodilators and corticosteroids) and amounts of oxygen until their care plan is adjusted. • Because clinical personnel and staff may be lower-paid/lesser-experienced or have a higher workload, patients may not receive the same level of attention as they would in a hospital that relies on higher-paid/more-experienced clinicians that have a more appropriate workload. Therefore, patients may not be as thoroughly monitored and have fewer opportunities for ambulation and patient teaching. • Because of the lack of social workers and occupational, physical, respiratory and speech therapists, patients may not receive an adequate level of rehabilitation required prior to discharge.
Maintenance Phase	• Patients may continue receiving lower levels of ambulation and education from nurses, and visits for occupational, physical, respiratory and speech issues from therapists. • While patients typically achieve their baseline (pre-admission) lung function prior to discharge, they may be less likely to have achieved their baseline mobility and speech due to the lack of ambulation, and occupational, physical and speech therapy.
Discharge Phase	• Patients may be more likely to review their discharge plans with their nurse instead of with their physician whom patients tend to perceive as being more competent and trustworthy, which can affect their comprehension of and compliance with instructions post-discharge. • The lack of teaching over the duration of the patient's stay concerning important aspects of their medication, ambulation, nutrition, fluid intake and smoking cessation increases the likelihood of readmission after discharge. • Patients may be discharged even if the state of their condition makes them less capable of completing activities of daily living such as eating, walking, cooking and communicating, relative to their pre-admission baseline.

Such hospital environments are likely to rely on nurses and allied health professionals that are relatively lower-paid/lesser-experienced and/or have higher workload to carry out discharge preparation practices throughout the patient's stay. They are also likely to rely on these same clinicians to assess, understand and communicate whether a patient has progressed toward their baseline mobility, speech and cognition. In

comparison to lung function, which is improved via the administration of medications and can be assessed with various diagnostic tests, clinical best-practices to improve and assess mobility, speech and cognition depend upon the expertise and judgement of nurses and the occupational, physical and speech therapists.

In a hospital environment that does not prioritize the reduction of COPD readmissions, clinicians may become accustomed to superficially implementing clinical practices for discharge preparation, including patient teaching, and those aimed at improving the mobility and speech of patients. Rather than implementing such clinical practices to their full extent, these practices will be implemented to the extent they help patients achieve a benchmark of clinical progress that is deemed acceptable for the organization, but sub-optimal relative to what would be achieved under their ideal form of implementation. For some patient, this likely causes non-compliance leading to a deterioration in their condition once discharged. Patients who are especially frail or whom are without private home care or family support will be more likely to experience an acute exacerbation of their condition.

In sum, in hospitals that have extensive plans for the implementation of technically efficient operating procedures (clinical standards) and high-level disagreement that improvement in clinical services and outcomes is an appropriate goal within the organization, clinicians may not receive the resources required to maintain or improve clinical services and outcomes. Instead, senior leaders might instead be directing their resources in support of the conflicting goal of cost reduction, with middle managers being relatively more focused on cost reduction than would otherwise be the case. This may cause clinicians to implement lower-fidelity versions (Ansari, Fiss, & Zajac, 2010) of the operating procedures (clinical standards) so as to emphasize cost-reduction over improvement in clinical services and outcomes.

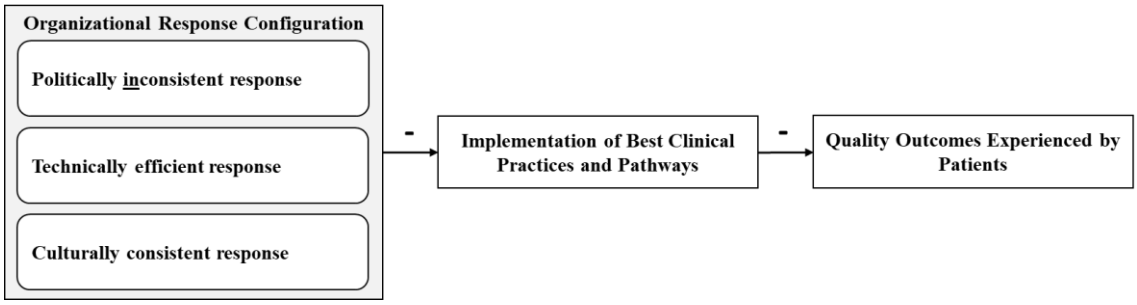

Figure 7: Superficial implementation occurs when there is political inconsistency, technical efficiency and cultural consistency

This form of unwitting decoupling has been relatively unexplored and under-theorized in the literature. It has also been overlooked in previous scholarship. For instance, it has long been known that, in advanced stages of diffusion, hospitals tend to implement clinical quality improvement frameworks in a manner that is decoupled from the technical gains that were experienced by earlier adopters (Kennedy & Fiss, 2009; Westphal, Gulati, & Shortell, 1997). It was initially suggested that when the field-level rationalization and diffusion of hospital quality improvement is high, adopters are more likely to mimic legitimated templates of adoption, reducing the technical benefits from their use (Westphal, Gulati, & Shortell, 1997). Later scholarship suggested that these hospitals tended to ceremonially adopt operating standards for clinical quality improvement in order to avoid a perceived threat of delegitimization rather than to pursue opportunities for technical gain, which led them to implement the frameworks less extensively than their espoused policies suggested (Kennedy & Fiss, 2009).

By utilizing a configurational perspective to analyze the consequences of hospitals' political, cultural and technical responses, the findings suggest a different explanation. The alternative explanation proposed here is that the operating procedures for clinical quality improvement were extensively implemented, but that political inconsistency within the organization caused them to be implemented in a manner that emphasized cost reduction. Since standardized clinical procedures such as order sets, clinical pathways, clinical handbooks, and discharge planning procedures can be used to further cost-reduction or improvement in clinical services (Bright, et al., 2012; Rotter, et

al., 2010; Gonçalves-Bradley, Lannin, Clemson, Cameron, & Shepperd, 2016), their effect on clinical outcomes depends not on the extensiveness of their implementation but on the purpose behind their implementation.

3.7.4 Subversive implementation of best clinical practices and pathways

Cultural inconsistency occurs when operational actors (middle-managers and frontline clinicians) value length-of-stay reduction over improving clinical quality and outcomes for COPD patients. The alignment of culture with length-of-stay reduction shapes what roles, responsibilities and behaviours that middle-managers and frontline clinicians deem appropriate while caring for and discharging COPD patients.

Scholars have shown that when actors face competing demands within their organization, they will resolve tensions in favour of the practices and outcomes they value most (Besharov & Smith, 2014; Kellogg, 2009; Kellogg, 2012; Kern, Laguecir, & Leca, 2018; Klein & Sorra, 1996). Therefore, when clinicians are culturally aligned with the goal of reducing length-of-stay, the implementation climate (Klein & Sorra, 1996) will value clinical practices and outcomes that further that goal and devalue clinical practices and outcomes they perceive as detrimental to that goal. Since there exists significant incompatibilities between cost reduction and improvement in clinical services and outcomes (Chen, et al., 2010; Jha, Orav, Dobson, Book, & Epstein, 2009; Stukel, et al., 2012), clinicians in culturally inconsistent contexts are likely to avoid the implementation of clinical best-practices and pathways that risk extending the hospital stay of some COPD patients.

In hospitals, it is the frontline clinicians who, under the influence of clinical and administrative middle-managers, are the implementers of practices involved in clinical quality improvement. These clinicians have a professional orientation that predisposes them toward ensuring the best clinical outcomes for patients (Scott, Ruef, Mendel, & Caronna, 2000). However, they must also grapple with the managerial reality of their organization (Reay & Hinings, 2009) as they execute their mandate of providing high-

quality healthcare. In Ontario, these managerial realities include the Health Ministry of Ontario's funding mechanisms which intensify senior administrators', medical leaders' and middle-managers' pressures on clinicians to expediently discharge patients with chronic diseases such as COPD. In addition, many inpatient units in Ontario hospitals have patient volumes that are consistently overcapacity relative to the number of inpatient beds. When hospital units are overcapacity, clinicians may further devalue certain clinical best-practices and pathways in favour of reducing length-of-stay; by discharging patients sooner, they can provide access to inpatient care and hospital beds for patients being admitted from the emergency department.

Thus, the managerial realities of some Ontario hospitals likely created a situation where clinicians valued the reduction of length-of-stay over the competing goal of improving clinical quality and outcomes for COPD patients. These cultural dynamics created conditions for the *subversive implementation* of best clinical practices and pathways. Conceptually, this represents an organizational response of political (in)consistency, technical (in)efficiency and cultural inconsistency. In other words, when there is cultural inconsistency, it may not matter whether political consistency or technical efficiency is present; clinicians' ambition to reduce length-of-stay for COPD patients may subvert the clinical best-practices and pathways that risk extending the hospital stay of COPD patients. This likely results in a truncation of best clinical practices and pathways in the maintenance and discharge phases of COPD patient's hospital stay (Table 10).

Table 10: Subversive implementation during phases of COPD patients' stay in hospital

	Implementation of clinical practices and pathways for COPD patients
Maintenance Phase	• A patient may be identified as being ready for discharge without having been fully weaned off of oxygen or without having achieved their baseline (pre-admission) oxygen requirements. As a result, the patient may have more difficulty breathing than usual upon their discharge. Additionally, because baseline lung function is needed to supply appropriate amounts of oxygen to the brain, cognitive capacities may be below pre-admission levels. • Antibiotic treatments may be switched from an intravenous to an oral

	mode of delivery (a patient cannot be sent home with IV antibiotics) even if the former is a more appropriate mode of treatment for their lung infection. This results in a longer treatment period for their infection and therefore a delay in achieving their baseline lung function while out in the community. • Ambulation therapy may be truncated, which prevents the patient from reaching their baseline mobility by the time of discharge. This lack of mobility can contribute to falls, especially when combined with cognitive impairment. • Many of the above-mentioned issues combine to make it harder for patient to undertake the activities of daily living upon discharge. Patients may be inadequately educated on such topics as nutrition, fluid intake, diet supplements and smoking cessation. Cognitive impairment may affect their ability to communicate with others and comply with their medication and other instructions.
Discharge Phase	• Patients and their caregivers may be rushed through an accelerated discharge process and not be given the opportunity to fully understand or retain important information contained in their discharge plan and self-management plan. • While the hospital may arrange for needed healthcare services to be provided at the patient's home, including home care services, occupational therapist visits, home oxygen and lung therapy, these services are not likely to be provided immediately. Because of the accelerated discharge process, it may take several days for healthcare services to be provided at the patient's home. • Other discharge practices such as the review, reconciliation and prescription of the patient's medication may be disorganized, increasing the likelihood of errors.

In the admission phase, intensive medical care phase and usual medical care phase, best clinical practices and pathways may be implemented. However, once the patient has been stabilized and has concluded the usual medical care phase, some best clinical practices in the maintenance and discharge phases may be more likely to be avoided or abandoned in favour of early discharge. As the emergency room fills up with patients waiting to be admitted, physicians seek to maintain access to inpatient beds by accelerating the discharge of COPD patients whose lung function appears to have recuperated the most or who otherwise appear to have a better chance of maintaining their condition after being discharged. Under these conditions, physicians seek to discharge such patients sooner than is optimal, thus shortening these patients' length of stay and truncating the best clinical practices and pathways that would normally occur during the maintenance and discharge phases.

During subversive implementation processes, physicians and nurses may use evidence of patients' social support and home oxygen as reasoning for truncating best clinical best-practices and pathways. Patients perceived to have stronger support from family and friends and those with home oxygen are more likely to be subject to subversive implementation and be discharged without having recovered their lung function, cognition and mobility to their pre-admission baseline levels. Many patients do not like being in a hospital environment and are happy to be discharged early. Yet, many of those patients are readmitted in the following days or weeks because of an acute exacerbation in their symptoms or other event (e.g. falling at home) that could have been prevented by a more extensive implementation of best clinical practices and pathways during the maintenance and discharge phases of their stay.

Figure 8: Subversive implementation occurs when there is cultural inconsistency, irrespective of political (in)consistency or technical (in)efficiency

Using a general linear approach, previous scholarship has shown that hospitals that reduce costs by shortening length-of-stay tend to also experience a decline in clinical outcomes (Chen, et al., 2010; Jha, Orav, Dobson, Book, & Epstein, 2009; Stukel, et al., 2012). However, causal mechanisms for the adverse relationship between length-of-stay and clinical outcomes have remained more elusive in the literature. By utilizing a configurational perspective to analyze the consequences of hospitals' political, cultural and technical responses, the findings indicate a causal mechanism for this tension that is rooted in internal inconsistency. Because institutional pressures caused clinicians to value length-of-stay, clinical best-practices and pathways that risked extending length-of-stay

were avoided or abandoned. Therefore, findings demonstrate how organizational practices can fall out of favour and become “deinstitutionalized” (Oliver, 1992).

Previous scholarship demonstrated how pre-existing cultural inconsistencies among clinicians can create resistance to planned organizational change as hospitals seek to respond to a new institutional pressure (Kellogg, 2009; Kellogg, 2012; Kern, Laguecir, & Leca, 2018). In contrast to these prior studies, the findings demonstrate how a new institutional pressure generates cultural inconsistencies among clinicians, whom, in turn, avoid or abandon pre-existing organizational practices in order to advance the requirements of this new pressure. By focusing on adverse changes in the implementation climate of clinicians (Klein & Sorra, 1996), the findings add to our understanding of unwitting forms of decoupling. Specifically, decoupling may occurr as an unwitting consequence of cultural change within the organization. This diverges from previous explanations focused on intentional change in organizational practices in response to institutional pressures (D'Aunno, Succi, & Alexander, 2000).

3.7.5 Symbolic implementation of best clinical practices and pathways

Technical inefficiency occurs when operational actors (middle-managers and frontline clinicians) are instructed to implement operating procedures (clinical standards) that are weakly or adversely associated to their desired outcomes. Scholars have suggested that, in a hospital context, many quality improvement techniques may be better suited to improving costs and customer satisfaction than to yielding meaningful change in clinical outcomes (Shortell, Bennett, & Byck, 1998), and are unlikely to lead to intended clinical improvements without abundant consideration of organization- and system-specific contingencies (Ferlie & Shortell, 2001).

When legitimated templates (e.g. standardized clinical procedures) are subject to high levels of oversight and scrutiny, organizations must reflect at least minimal compliance with demands in order to maintain social acceptance (DiMaggio & Powell, 1983). This can lead organizations to direct substantial resources toward the

implementation of practices that have a tenuous relationship with their core technical requirements (Bromley & Powell, 2012; Meyer & Rowan, 1977). Since technically inefficient operating procedures have a tenuous relationship with their desired outcomes, their implementation can result in adverse organizational change and a decline in organizational performance (Bromley, Hwang, & Powell, 2012; Bromley & Powell, 2012).

For Ontario hospitals, technical inefficiency was reflected by a hospital's commitment to implementing their Regional Health Authority's continuity-of-care programs for COPD patients while abstaining from the implementation of technically efficient clinical standards such as clinical pathways, order sets, discharge planning procedures or the Health Ministry's clinical handbooks. This *symbolic implementation* of best clinical practices and pathways caused an increase rather than a reduction in readmissions for COPD patients. Conceptually, this represents a technically inefficient response, and, when this was the case, it did not matter whether that response was configured with political or cultural consistency; a hospital's commitment to incorporating a technically inefficient standard of care likely subjected COPD patient to adverse clinical practices and pathways, which made it more likely that they would be readmitted (Figure 9).

This technical inefficiency occurred because, while the Regional Health Authority's continuity-of-care programs were theoretically sound, the health system upon which it relied was highly overburdened, which limited patients' ability to access the care being promised by the programs. Enrolling patients in continuity-of-care programs was detrimental also because these programs were ill-equipped to address the healthcare needs of COPD patients while they were out in the community. The telehealth program, for example, does not work for the majority of COPD patients who tend to be elderly, inexperienced with technology and who would therefore benefit from in-person consultations. Additionally, hospitals with a technically inefficient response may have affected broader clinical decision making-during COPD patients' hospital stay. Clinicians were expected to enrol COPD patients in continuity-of-care programs during the usual medical care phase, maintenance phase or discharge phase of their hospital stay. This

may have caused clinicians to overlook certain discharge preparation practices as pertaining to patient education because of the false sense of security that the continuity-of-care programs provided. Clinicians may have also felt more comfortable discharging a patient whose lung function has not yet recovered to their pre-admission baseline by reasoning that the added attention patients would receive from continuity-of-care programs will help them recuperate at home. Similarly, middle-managers may have used a patient's enrollment in these programs as an argument with physicians and nurses to discharge a patient early even if their lung-function has not fully recuperated. Additionally, clinicians and patients may be less likely to arrange follow-up appointments with their primary care physician or specialist following discharge because they believe consultations and other services through continuity-of-care programs can serve as substitute. Overall, enrolment of COPD patients in continuity-of-care programs could have provided reasoning for physicians to discharge patients early or without a more extensive implementation of discharge preparation practices.

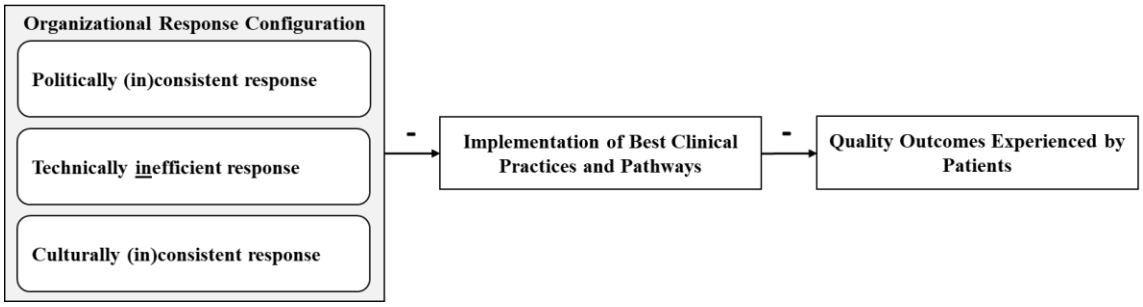

Figure 9: Symbolic implementation occurs when there is technical inefficiency, irrespective of political or cultural (in)consistency

Although a relatively nascent construct, symbolic implementation has already been recognized in management scholarship as a technically inefficient organizational response to institutional pressures that contributes to unwitting decoupling (Bromley, Hwang, & Powell, 2012; Bromley & Powell, 2012). In the healthcare context, it is understood that implementing technically inefficient operating procedures can lead to adverse outcomes. The findings therefore confirm the contributions that management scholars have already made on this subject.

3.7.6 Summary

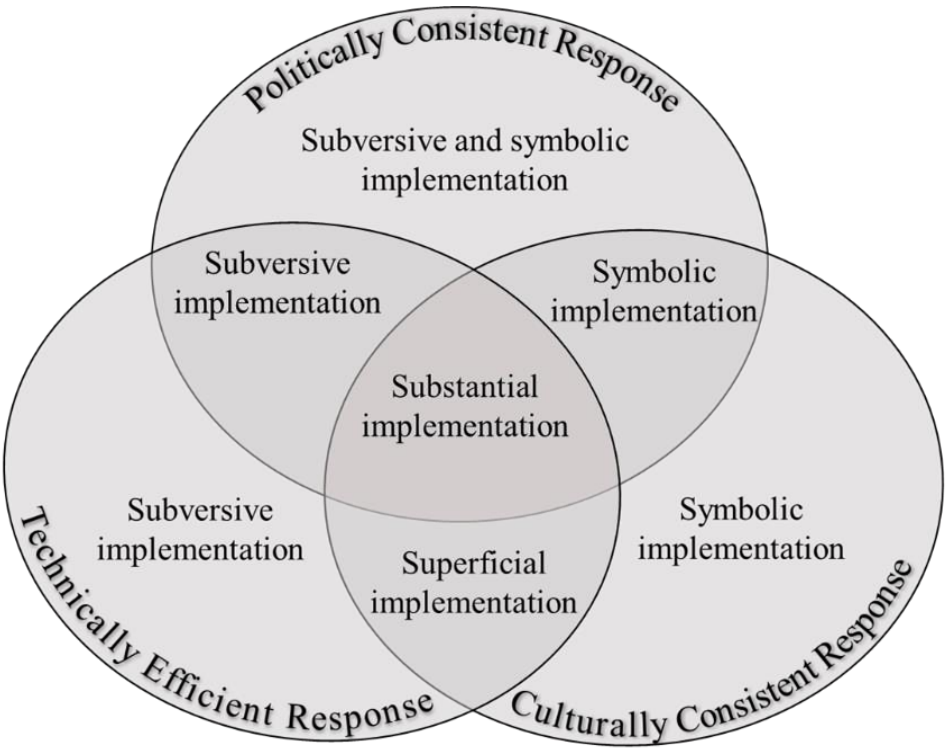

Figure 10: Typology of hospitals' political, technical and cultural responses and their consequences for the implementation of best clinical practices and pathways

Figure 10 presents the resulting typology of the consequences of organization's various political, technical and cultural responses to conflicting institutional pressures, in terms of their impact on the implementation of best clinical practices and pathways. As the results of the analysis suggest, substantial implementation occurred when there was alignment among the three forms of organizational responses, thus enabling the extensive implementation of technically efficient clinical standards and improving the utilization of best clinical practices and pathways.

Misalignment at the level of any of the three forms of responses led to a deterioration of clinical services and outcomes through either superficial, symbolic, or subversive implementation:

1. Superficial implementation occurred when culture was consistent and comprehensive plans existed for the implementation of technically efficient procedures, but political inconsistency caused those procedures to be implemented in a manner that emphasized cost-reduction over quality improvement.
2. Subversive implementation occurred when cultural inconsistency caused clinicians to value length of stay reduction over improving readmissions.
3. Symbolic implementation occurred, irrespective of cultural and political consistency or inconsistency, when technically inefficient procedures were implemented, reducing the utilization of best clinical practices and pathways.

3.8 Conclusion

This study responded to scholars (Misangyi, et al., 2017; Raynard, 2016; Zhao, Fisher, Loundsbury, & Miller, 2017) who have recently called for the application of a configurational perspective to the study of organizational responses to institutional complexity (Greenwood, Raynard, Kodeith, & Micelotta, 2011). By limiting the investigation to a single sector and jurisdiction, this study explored heterogenous organizational responses to institutional complexity and demonstrated how an organization's political, technical and cultural responses interact to affect important consequences for organizational change and performance. Findings uncovered three previously under-theorized forms of unwitting decoupling occurring through superficial implementation, subversive implementation and symbolic implementation.

The findings call for greater attention to the unwitting consequences of organizational responses to institutional complexity resulting from internal inconsistencies and technical inefficiency (Meyer & Rowan, 1977). Institutionally complex environments—such as the health sector's—pose the potential for heterogenous responses to institutional pressures (Bromley, Hwang, & Powell, 2012), either as a result of organizations' intentional coupling to compatible demands while decoupling from others (D'Aunno, Sutton, & Price, 1991), or through unwitting responses that result when organizations couple to demands that are incompatible, which subsequently creates conflicts between competing practices and outcomes (Besharov & Smith, 2014; Bromley

& Powell, 2012). The former should facilitate the *substantial* implementation of clinical best-practices and pathways conducive to furthering the outcome of interest. However, the latter has the potential to create internal inconsistencies and technical inefficiency within the organization (Bromley & Powell, 2012).

Findings of the configurational analysis supports previous management scholarship on *symbolic* implementation (Bromley, Hwang, & Powell, 2012). However, findings also uncovered two other novel forms of responses: *subversive* implementation and *superficial* implementation. In contrast to the previous management scholarship's focus on witting forms of decoupling through symbolic adoption, these three novel forms are unwitting in their nature.

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3.10 Appendix

3.10.1 Research setting details

3.10.1.1 Hospital funding reform and accompanying clinical handbooks

In 2012, a provincial reform, called Health System Funding Reform, was initiated with the aim of standardizing costs and care practices in hospital settings for select health conditions such as CHF and COPD (Ministry of Health and Long-Term Care, 2013). As per this reform, hospitals' diagnoses and procedures related to these select conditions were to be funded on the basis of 'fixed price x patient volume' to incentivize cost efficiencies. Because the main drivers of costs for treating these conditions are the patient's length of stay and treatment intensity, this created a financial incentive to reduce these expenditures. Before this reform, Ontario hospitals funded their operations almost exclusively with a global budget, an opaque lump sum payment awarded by the Ontario government at the beginning of each fiscal year to fund all patient services at their own discretion. By providing fixed payments, hospitals relatively efficient at serving these cohorts would realize net gains, whereas those that are relatively inefficient would realize net losses.

Additionally, as part of this reform, the Ontario Health Ministry partnered with an arm's length Provincial Advisory Agency, called Health Quality Ontario, to develop clinical handbooks describing recommended care practices for these conditions (Ontario Hospital Association, n.d.). A product of multidisciplinary expert advisory panels that sought consensus on clinical pathways and evidence-based practices for acute and post-acute episodes of care (Health Quality Ontario & Ministry of Health and Long-Term Care, 2015), the expressed purpose of these clinical handbooks was to reduce practice variation among hospitals and other providers, and, consequently, reduce variations in clinical outcomes (Ministry of Health and Long-Term Care, 2014). While the original vision for the Health System Funding Reform was that a proportion of funding would be contingent upon demonstrated adherence to specific standards of clinical service quality

such as those contained in the clinical handbooks, the connection between quality and funding was not implemented when funding was rolled out (Palmer, et al., 2018). As a result, the implementation of clinical handbooks was voluntary and there were no financial incentives for improving quality (Palmer, et al., 2018). Instead, pressures to implement evidence-based practices and clinical pathways described in the clinical handbooks arose from a legislated Quality improvement planning and implementation process described below.

3.10.1.2 Legislation of hospitals' quality improvement process

A provincial legislation called the Excellent Care for All Act formalized Ontario hospitals' quality improvement planning and implementation process by requiring that each hospital establish a Quality Committee responsible for quality improvement in their organization (Legislative Assembly of Ontario, 2010). As per this legislated process, the Provincial Advisory Agency provided a list of priority quality issues which hospitals were expected to incorporate in their QIPs. Consequently, hospitals were required to release QIPs to the public at the onset of every fiscal year, detailing their organization's quality improvement commitments, in terms of specific measurable targets for improving the quality of clinical services and their outcomes, by end of fiscal year. They were also required to describe the espoused practices that their organization aspired to implement to achieve these goals.

As per the legislation, the Quality Committee was then responsible for monitoring the organization's performance on its commitments, throughout the fiscal year, providing regular reports to the board of directors (Health Quality Ontario, 2014). A hospital's CEO and other executives were also required to liaise between the Quality Committee and their staff at lower levels of the hospital in developing and implementing the QIP. Additionally, their board of directors was required to link the compensation of senior executives to the achievement of targets in the QIP, keeping them accountable for its execution (Health Quality Ontario, 2014). Middle managers and frontline clinicians were expected to put into practice the various operating procedures specified in the QIPs so as to help their hospital achieve their quality improvement goals. At the end of the fiscal

year, the Quality Committee was required to publish a detailed progress report to inform the public on the hospital's success in achieving their plan.

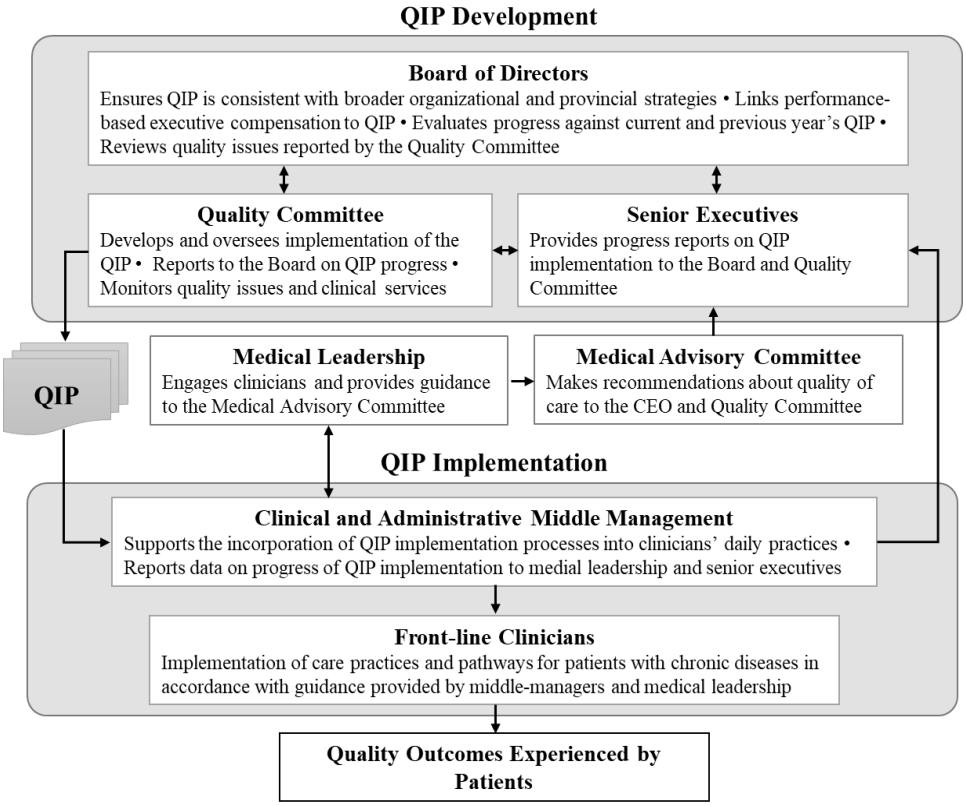

Figure 11: Ontario hospitals' quality improvement planning and implementation process as per the Excellent Care for All Act

Figure 11 summarizes the process through which quality improvement planning and implementation were to take place as per the requirements of the Excellent Care for All Act. By mandating the establishment of Quality Committees and formalizing their role in quality improvement planning and implementation, the Act created extraordinary accountability and transparency toward the improvement of clinical services and outcomes.

Note: it is important to recognize that quality improvement planning and implementation processes varied among different hospitals. It is also likely that many hospitals deviated substantially from the formal framework presented in Figure 11. While inter-hospital differences are acknowledged, it remains that the QIP is reflective of any

idiosyncrasies that may have existed among hospitals. The QIP codifies how any given Ontario hospital formally responded to the competing pressures for cost containment and quality improvement. For example, hospitals likely differed in the extent to which medical leaders and the Medical Advisory Committee were involved and influenced the quality improvement planning process. Since clinicians are usually strong proponents of clinical services and outcomes, this particular idiosyncrasy would affect the extensiveness of planned clinical quality improvement practices for chronic diseases and the targeted readmission rate. Such variations in processes among hospitals are reflective of variations in the culture and politics of different organizations, as antecedents to the QIP. Stated differently, the QIP is itself an end-product of the cultural and political conditions that preceded its development. Further, because the QIP is a formal, strategic document to which the upper echelon of every Ontario hospital is held accountable (senior executives, Quality Committee, board of directors), the QIP ultimately represents a hospital's formal response. And it is this formal response, in itself, that is most pertinent to the focus of this study, which asks "What are the *consequences* of hospitals' [formal] responses to conflicting institutional pressures". The question of precisely how different QIPs were developed in their respective organization is a separate research question that, for the sake of parsimony, was excluded from this essay.

3.10.1.3 Pressures to simultaneously reduce costs while improving the quality of clinical services and their outcomes for CHF and COPD

In 2016 and 2017, pressures to simultaneously reduce costs while improving the quality of clinical services and their outcomes came to a head as the Provincial Advisory Agency selected three reformed patient conditions (CHF, COPD and stroke) to be included as priority indicators in Ontario hospitals' legislated Quality improvement planning and implementation processes. A year prior, in 2015, the Provincial Advisory Agency had published the updated clinical handbooks for two of these conditions (CHF and COPD), revising the original handbooks published in 2013. Hospitals were therefore required to disclose their level of aspiration toward improving clinical service quality—by way of

specific standardized care procedures they were aiming to implement—and clinical outcomes—by way of a specific target for improving clinical outcomes for these conditions, namely the rate with which discharged patients were readmitted within 30-days, on a risk-adjusted basis. Combined with the pressure to reduce costs as per hospital funding reform, these two simultaneous pressures created the potential for organizations to create or exacerbate internal inconsistencies.

3.10.1.4 The Regional Health Authority's continuity-of-care programs

Lastly, the potential for technical efficiencies arose through the promulgation of hospitals' discourse on integrated care and continuity-of-care programs at the field-level, which created a rhetoric a success surrounding the implementation of these programs, regardless of the technical reality of their implementation (Zbaracki, 1998). As part of the legislated Quality improvement planning and implementation process, the Provincial Advisory Agency required that hospitals provide a written narrative to describe "how the organization is working with system partners in developing and/or executing quality improvement initiatives to improve integration and continuity of care for [their] patients" (Health Quality Ontario, 2014, p. 7). This requirement was put in place in order to promote the notion that a "stronger focus on patient-centred integration across all areas of the patient journey, beyond the care delivered in the health care organization, will help to ensure patients receive high quality, accessible and coordinated care" (Health Quality Ontario, 2012, p. 9). However, these continuity-of-care programs were created and managed by Regional Health Authorities called Community Care Access Centres and Local Health Integration Networks, and were administered by bureaucrats, not hospitals themselves, with little support from hospital clinicians. Further, they were overburdened, which limited their effectiveness. Nonetheless, the legislated Quality improvement planning and implementation process created pressures for hospitals to adopt these programs, despite potential technical inefficiencies.

3.10.2 Tables

Table 11: Summary of hospital QI informants interviewed during the preliminary stage of the QCA

Type	Experts		Interview	
	Role	**Organization**	**Rounds**	**Time**
Health system experts	Executive	Health Quality Ontario	1	45 mins
	Implementation science and health policy researcher	Teaching Hospital	1	45 mins
	Implementation science and health policy researcher	University	1	45 mins
Hospital board member	Board Member	Community Hospital	1	30 mins
Hospital clinicians	Chief of Staff	Community Hospital	1	45 mins
	Clinical Services Director, Physician Specialist	Teaching Hospital	1	3 hr
	Physician Specialist	Teaching Hospital	2	1 hr and 45 mins
	Senior Physician	Teaching Hospital	1	45 mins
Hospital executives	Chief Executive Officer	Teaching Hospital	1	30 mins
	Chief Executive Officer	Teaching Hospital	1	1 hr
	Chief Financial Officer	Community Hospital	1	45 mins
	Vice President of Emergency Services and Access	Teaching Hospital	1	1 hr
	Vice-President of Programs and Transformation	Community Hospital	1	1 hr 30 mins
Hospital managers	Health Integration Lead	Teaching Hospital	1	1 hr
	Medical Director	Community Hospital	2	1 hr 45 mins
	Medical Director	Teaching Hospital	2	1 hr 20 mins
	Medical Director	Teaching Hospital	2	1 hr 20 mins
	Medical Director	Teaching Hospital	3	1 hr
	Medical Director	Teaching Hospital	1	30

				mins
Hospital quality improvement academic experts	Professor with expertise in health system integration for chronic diseases	Health Studies Department	1	45 mins
	Professor with expertise in healthcare strategic management	Business School	2	1hr 30 mins
	Professor with expertise in quality improvement	Business School	2	2 hrs
Hospital quality improvement administrators	Board Member	Regional Health Authority	3	3 hrs 45 mins
	Chief Executive Officer	Regional Health Authority	1	45 mins
	Chair of Hospital Quality Committee	Community Hospital	1	1 hr
	Director of Decision Support	Teaching Hospital	1	45 mins
Medical experts	Chronic disease researcher working with regional health authority and province (clinical handbook)	University and Teaching Hospital	1	30 mins
	Family Physician	Family Health Clinic	2	1 hr 30 mins
	Family Physician	Family Health Clinic	1	2 hr

Table 12: Archival sources reviewed during the preliminary stage of the QCA

Type	**Title**	**Year**	**Author(s) (Journal)**
Clinical Guidelines	Hospital Management of COPD Exacerbations: Summary Pathway and Recommended Practices	N.D.	Health Quality Ontario
	Hospital Management of COPD Exacerbations: Summary Pathway and Recommended Practices	N.D.	Health Quality Ontario
	Quality-Based Procedures: Clinical Handbook for Chronic Obstructive Pulmonary Disease	2013	Ministry of Health and Long-Term Care; Health Quality Ontario
	Quality-Based Procedures: Clinical Handbook for Chronic Obstructive Pulmonary Disease (Acute and Postacute)	2015	Ministry of Health and Long-Term Care; Health Quality Ontario
Government Policies and Initiatives	Excellent Care for All Act	2010	Government of Ontario
	Health System Funding Reform (HSFR)	2012	Government of Ontario
	Hospital Service Accountability Agreements: Schedules & Indicators	2017	Ontario's Local Health Integration Networks
	Patient First: Action Plan for Health Care	2015	Ministry of Health and Long-Term Care

	Quality-Based Procedures (QBP): Carve-Out and Pricing	N.D.	Ontario Hospital Association
Guidance documents for hospitals	2014/15 Quality Improvement Plans: Frequently Asked Questions & Answers	2013	Health Quality Ontario
	ALC Management: Three Work Streams	N.D.	Ministry of Health and Long-Term Care; Local Health Integration Network
	Indicator Technical Specifications: 2017/18 Quality Improvement Plans	2017	Health Quality Ontario
	Quality Improvement Plan (QIP): Guidance Document for Ontario's Health Care Organizations	2014	Ministry of Health and Long-Term Care; Health Quality Ontario
	Quality-Based Procedures Indicators: An Implementation Guidance Document	2014	Ministry of Health and Long-Term Care
	Toolkit to Support the Implementation of Quality-Based Procedures	ca. 2014	Ontario Hospital Association
Journal Articles	Qualitative Analysis of the Dynamics of Policy Design and Implementation in Hospital Funding Reform	2018	Palmer et al. (PLOS ONE)
	Quality-Based Procedures in Ontario: Exploring Health-Care Leaders' Responses	2016	Baxter et al. (Journal of Nursing Management)
	Standardising Costs or Standardising Care? Qualitative Evaluation of the Implementation and Impact of a Hospital Funding Reform in Ontario, Canada	2018	Palmer et al. (Health Research Policy and Systems)
	Supporting the Implementation of Stroke Quality-Based Procedures (QBPs): A mixed methods evaluation to identify knowledge translation activities, knowledge translation interventions, and determinants of implementation across Ontario	2018	Moore et al. (Health Services Research)
Online Platforms	Health Data Branch Web Portal	N.D.	Ministry of Health and Long-Term Care
	QIP Navigator	N.D.	Health Quality Ontario
	Quorum/ Quality Compass/ Ideas	N.D.	Health Quality Ontario
Presentations	Best Care is a Right, not a Privilege Quality-Based Procedures Person-Level Health Care Costing	2015	Director, Ontario Ministry of Health and Long-Term Care
	COPD Care Programs	2015	The Ottawa Hospital
	COPD Exacerbation Data at the Ottawa Hospital	N.D.	The Ottawa Hospital
	Exploring the Chronic Obstructive Pulmonary Disease (COPD) Clinical Pathway Health Quality Ontario's integrated episode of care for COPD	2015	Health Quality Ontario
	How the Quality Improvement Plan and the Service Accountability Agreement Can Transform the Health Care System	2016	Local Health Integration Network – Health Quality Ontario (HQO)

			Quality Improvement Task Group
	HQO's Episode of Care for Chronic Obstructive Pulmonary Disease	2013	Ontario Hospital Association
	Looking Back and Looking Forward: A Sneak Peek for the 2018/19 Hospital Quality Improvement Plans (QIPs)	2017	Health Quality Ontario
	Putting the 'Q' in the COPD QBP: Health Quality Ontario's integrated episode of care for COPD	2015	Health Quality Ontario
	Quality Based Procedure Indicators: Chronic Obstructive Pulmonary Disease Regional Sessions	2015	Ministry of Health and Long-Term Care; Ontario Hospital Association
	Relationship Between QIPs and SAAs: Draft Recommendations	2016	Health Quality Ontario and Local Health Integration Network
	Chronic Obstructive Pulmonary Disease: The Ontario Experience	2015	Director, Ministry of Health and Long-Term Care
	Patient-Based Funding: Overview	2012	Ministry of Health and Long-Term Care
	Quality-Based Procedures Initial 2015/16 Allocation	2015	Central East LHIN
	Supporting Best Practice for COPD Care Across the System	2017	Health Quality Ontario
Reports	Expense Trends and Medium-Term: Outlook Analysis: Winter 2017	2016	Financial Accountability Office of Ontario
	Hospitals Impressions and Observations: 2015/16 Quality Improvement Plans	2015	Health Quality Ontario
	COPD in Ontario: Health, Care and Costs	2015	Canadian Foundation for Healthcare Improvement

Table 13: Calibrated fuzzy-set data

fzOutcome	SA	MI	CS	CP	LR	SI	BP	Facility ID
0.99	0.05	0.09	0	0	0		0	900
0.99	0.05	0.59	0	0	0	0.2	0	813
0.99	0.77	0.09	0.25	0	0	0.94	0	907
0.99	0.99	0.59	0.35	0.6	0	0.04	1	804
0.99	0.96	1	0.55	0	0	0.06	0	707
0.97	1	0.49	0.35	0	0	0.8	0	952
0.93	0.05	0.09	0	0	0	0.99	0	930
0.92	0.91	0.54	0.65	1	0	0.93	0	726
0.91	0.05	0.41	0	0	0	0.21	0	701
0.9	0.05	0.43	0	0	0	0.05	0	890
0.89	0.05	0.49	0	0	0	0.73	0	941

0.89	0.98	0.55	0.65	1	0	0	0	814
0.88	0.05	0	0	0	0	0.1	0	975
0.86	0.99	0.59	0.55	0	0	0.15	1	674
0.76	0.05	0.09	0	0	0	0.13	1	718
0.72	0.05	0.19	0	0	0	0.49	0	940
0.71	0.05	0.51	0	0	0	0.1	0	976
0.69	0.05	0.59	0	0	0	0.32	0	974
0.68	0.73	0.37	0.55	0	0	0.83	0	958
0.68	0.74	0.59	0.55	0	0	0.18	0	905
0.68	0.74	0.24	1	0.6	0		0	954
0.66	0.61	0	0.65	1	0	0.48	0	933
0.65	0.05	0.59	0	0	0	0.38	1	936
0.65	0.9	0.74	0.6	1	0	0.18	0	665
0.65	0.75	0.74	1	0	0	0.06	0	763
0.62	0.73	0.42	0.1	0	0	0.15	0	699
0.61	0.59	0	0.55	0	0	0.5	0	957
0.61	0.7	0.34	0.55	0.6	0	0.33	1	942
0.61	0.68	0	0.55	0	0	0.73	0	771
0.59	0.99	0	0.55	0	0	0.2	0	888
0.51	0.38	0.5002	0.8	0	0	0.2	0	777
0.49	0.05	0.49	0	0	0	0.95	0	947
0.46	0.05	0.19	0	0	0	0.35	0	793
0.46	1	0.84	0.1	0	0	0.75	0	950
0.45	0.05	0.34	0	0	0	0.23	0	824
0.44	0.05	0.43	0	0	0	0.66	0	753
0.41	0.05	0.49	0.4	0	0	0.51	0	882
0.4	0.7	0.56	0.3	0	0	0.96	0	858
0.39	0.05	0.49	0	0	0	0.71	1	962
0.36	0.05	0.69	0	0	0	0.21	1	632
0.36	0.05	0.19	0	0	0	0.8	0	953
0.36	0.31	0.94	0.4	1	1	0.22	0	745
0.35	0.05	0	0	0	0	0.55	0	736
0.35	0.97	0.49	0.55	1	0	0.33	0.6	916
0.34	0.05	0.51	0	0	0	0.56	0	955
0.33	0.66	1	0.45	0	0	0.18	0	967
0.32	0.05	0	0	0	1	0.67	0	898
0.3	0.05	0.49	0	0	0	0.4	1	970
0.27	0.05	0	0	0	0	0.66	0	959
0.25	0.51	0.34	0.1	1	0	0.21	0	966
0.23	1	0.48	0.2	0	1	0.49	0	800
0.17	0.7	0.58	0.2	1	0	0.66	0	995
0.17	0.98	0.46	0.65	1	0	0.53	0	968
0.16	0.05	0.49	0	0	0	0.16	0	661

0.16	0.05	0.43	0	0	0	0.81	0	606
0.15	0.39	0.94	0.15	0	0	0.68	0	619
0.13	0.05	0.09	0	0	0	0.16	0	640
0.11	0.68	0	0.55	0.6	0	0.26	0	935
0.1	0.05	0.55	0	0	0	0.99	0	704
0.08	0.05	0.54	0	0	0	0.11	0	946
0.06	0.15	0.59	0.55	0	0	0.7	0	931
0.06	0.65	0.54	0.85	1	1	0.74	0.6	951
0.03	0.05	0.59	0	0	0	1	0	852
0.02	0.04	0.48	0.4	1	0	0.92	0	928
0	0.05	0.39	0.55	0	0		0	826

3.10.3 Research ethics

3.10.3.1 Research approval letter

Western Research

Date: 14 February 2020

To: Dr [redacted]

Project ID: 115055

Study Title: Implementation of Care Practices for Chronic Diseases:
Successes, best-practices and continued challenges in service delivery for CHF and COPD patients in acute care settings, and recommendations to further value-based healthcare in Ontario

Application Type: HSREB Initial Application

Review Type: Delegated

Full Board Reporting Date: February 25, 2020

Date Approval Issued: 14/Feb/2020

REB Approval Expiry Date: 14/Feb/2021

Dear Dr [redacted]

The Western University Health Science Research Ethics Board (HSREB) has reviewed and approved the above mentioned study as described in the WREM application form, as of the HSREB Initial Approval Date noted above. This research study is to be conducted by the investigator noted above. All other required institutional approvals must also be obtained prior to the conduct of the study.

Documents Approved:

Document Name	Document Type	Document Date
Email Script for Clinicians	Email Script	Received February 12, 2020
Interview Guide (2)	Interview Guide	Received February 12, 2020
Letter of Information and Consent_V3	Written Consent/Assent	29/Jan/2020
Non-Participant Observation Guide (2)	Non-Participant Observation Guide	Received February 12, 2020
Patient Information Sheet_V3	Written Consent/Assent	10/Feb/2020
Research Plan_Implementation of Care Practices for Chronic Diseases	Protocol	16/Jan/2020

No deviations from, or changes to, the protocol or WREM application should be initiated without prior written approval of an appropriate amendment from Western HSREB , except when necessary to eliminate immediate hazard(s) to study participants or when the change(s) involves only administrative or logistical aspects of the trial.

REB members involved in the research project do not participate in the review, discussion or decision.

The Western University HSREB operates in compliance with, and is constituted in accordance with, the requirements of the TriCouncil Policy Statement: Ethical Conduct for Research Involving Humans (TCPS 2); the International Conference on Harmonisation Good Clinical Practice Consolidated Guideline (ICH GCP); Part C, Division 5 of the Food and Drug Regulations; Part 4 of the Natural Health Products Regulations; Part 3 of the Medical Devices Regulations and the provisions of the Ontario Personal Health Information Protection Act (PHIPA 2004) and its applicable regulations. The HSREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000940.

Please do not hesitate to contact us if you have any questions.

Sincerely,

[redacted] Ethics Officer on behalf of [redacted] HSREB Vice-Chair

Note: This correspondence includes an electronic signature (validation and approval via an online system that is compliant with all regulations).

3.10.3.2 Email script for clinicians

Subject: Invitation to participate in research on Implementation of Care Practices for Chronic Diseases

Dear *[Individual's Name]*,

At the recommendation of *[Champion's Name]*, you are being invited to participate in a study titled: "Implementation of Care Practices for Chronic Diseases: Successes, best-practices and continued challenges in service delivery for CHF and COPD patients in acute care settings, and recommendations to further value-based healthcare in Ontario"

Briefly, this study seeks to understand the successes, best-practices and remaining challenges in implementing standardized and evidence-based practices in acute care settings to achieve simultaneously better health system and financial outcomes. It is primarily focused on understanding clinicians' reasoning for adopting certain care practices and interventions in inpatient care.

This research participation will involve two components: observation and interview. If you agree to the observational component, the lead researcher—Gabriel A. Huppé, PhD Candidate—will shadow you during your shift to observe how you implement various practices in your care delivery for CHF and/or COPD patients.

The interview component will involve a face-to-face conversation guided by a pre-determined set of questions, which will be shared with you in advance. This interview may be audio-recorded depending on your consent, and you may still participate if you do not agree to audio-recording. The observation and interview will take place on a date and time chosen by you and the researcher. Participation is voluntary and will not carry any compensation.

For further information on this research, please consult the attached Letter of Information. Please let us know if you have questions or concerns.

We look forward to hearing from you. If we do not hear from you after a week, we will send a follow-up reminder. A final email reminder will be sent two days after the first reminder.

Best regards,

Gabriel A. Huppé (Lead Researcher and Co-Investigator)
PhD Candidate, MSc, MM, CSSGB

Ivey Business School at Western University
1255 Western Road
London, ON N6G 0N1

3.10.3.3 Interview guide (Phase 2 cancelled due to COVID-19)

Phase 1 – Understanding clinicians' reasoning for adopting certain care practices and interventions in inpatient care

Objective of interviews during Phase 1: The Phase 1 interviews are geared toward understanding clinicians' reasoning for adopting certain care practices and interventions in inpatient care for chronic diseases. This interview component will involve a face-to-face conversation guided by a pre-determined set of questions shared in-advance with participants.

Interview questions:

1. At a broad level, how do clinicians determine what evidence-based practices are, and how do they incorporate these practices in their care delivery?

2. Whether, how and why do clinicians use standardized practices such as pathways, order sets and discharge planning?

3. Whether how and why do clinicians seek to achieve efficiency targets of their organization as pertaining to such areas as length of stay and treatment intensity?

4. What are clinicians' perceptions of the major challenges and best-practices in treating CHF and COPD patients in acute care settings to ensure highest value per cost of care?

Phase 2 – Understanding clinicians' and administrators' perspectives on how best to achieve the integration of clinical and managerial goals

Objective of interviews during Phase 2: The Phase 2 interviews are geared toward incorporating the perspectives of administrators with those of clinicians in order to understand how clinical and administrative goals ought to be integrated to achieve value-based healthcare in the context of chronic disease management in acute care settings, particularly CHF and COPD. This interview component will involve a face-to-face or telephone conversation guided by a pre-determined set of questions shared in-advance with participants.

Interview questions:

1. What measures of success do clinicians and administrators associate with the management of chronic conditions?

2. What are clinicians and administrators' perspectives on the usefulness of standardized and evidence-based practices in achieving these measures of success?

3. What are clinicians and administrators' perspectives on how clinician and operational managerial goals relate to each other, and how they should be integrated in practice.

3.10.3.4 Letter of information and consent

Ivey Business School

Western University · Canada

LETTER OF INFORMATION

Research Title: "Implementation of Care Practices for Chronic Diseases: Successes, best-practices and continued challenges in service delivery for CHF and COPD patients in acute care settings, and recommendations to further value-based healthcare in Ontario"

Researcher/Co-Investigator: Gabriel A. Huppé, Ph.D. Candidate, Ivey Business School, Western University

Principal Investigator: Dr. [redacted] Assistant Professor and Executive Director of Ivey International Centre for Health Innovation, Ivey Business School, Western University

Invitation to Participate in Study: You are invited to participate in our research on the successes, best-practices and remaining challenges in the implementation of standardized and evidence-based practices in acute care settings to achieve simultaneously better health system and financial outcomes. It is primarily focused on understanding clinicians' reasoning for adopting certain care practices and interventions in inpatient care for CHF and COPD conditions. Additionally, it will seek the perspectives of administrators so that we may generate an understanding how the clinical and administrative perspective are integrated in the management of chronic diseases in acute care organizations.

Purpose of Study: Acute care hospitals bear most of the financial and healthcare burden for these diseases, and are therefore important settings to study and understand the implementation of standardized and evidence-based practices. The study will contribute to a greater understanding of the successes, best-practices and continuing challenges in the implementation of standardized and evidence-based care practices, their contribution to health and financial outcomes, and recommendations for addressing gaps at the level of the health system as a whole, in order to advance value-based healthcare in Ontario. We anticipate the inclusion of a total of 70-90 clinical and administrative participants in this study, across five acute care hospitals in Ontario. This study is being undertaken in support of the co-investigator's doctoral dissertation. As such, the co-investigator acts as the lead researcher and the person primarily responsible for data collection and analysis.

Procedures and Duration: To be eligible to participate in this study, you must be either: associated with care delivery for CHF and/or COPD patients in an acute care hospital; engaged in quality improvement in an acute care hospital, or; a member of an acute care hospital senior leadership team. The research will proceed in two phases.

Phase 1 – Understanding clinicians' reasoning for adopting certain care practices and interventions in inpatient care: Clinicians are invited to participate in observations and interviews geared toward understanding their reasoning for adopting certain care practices and interventions in inpatient care. For the observation component, participating clinicians will be shadowed during their shift so that the researcher may observe how they implement various practices in their care delivery for CHF and/or COPD patients. The interview component will involve a face-to-face conversation guided by a pre-determined set of questions shared in-advance with participants. The interview may be audio-recorded depending on the participant's consent. The observations and interviews will take place at a date and time chosen by the clinicians and the researcher. Interviews are expected to last 45 minutes, depending on availability. Participants may be invited for follow-up interviews once the researcher has begun analyzing data. If participants are invited for a follow-up interview, the date and time of the interview will be jointly determined. The follow-up interviews will last approximately 45 minutes and be audio-recorded depending on consent.

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name will not be used. Your email address may be used for scheduling further interviews, for follow-up purposes or to forward a copy of the final publication at your request. While we will do our best to protect your information, there is no guarantee that we will be able to do so completely. We will keep your name confidential in any publication. Provided that we have consent, an approximation of your title may be used for the purpose of personal quotes and providing support for our research. Your organization will equally remain confidential. Representatives of the Western University Health Sciences Research Ethics Board and Lawson Quality and Education Program may require access to your study-related records to monitor the conduct of our research.

Who to Contact with Questions: If you require further information regarding this research project or your participation in the study, you may contact:

Lead Researcher and Co-Investigator:
Gabriel A. Huppé
Ph.D. Candidate, MSc, MM, CSSGB
Email: [redacted]
Mobile: [redacted]

Principal Investigator:
Dr. [redacted]
PhD, MBA, CMA, CPA
Assistant Professor, Ivey Business School
Executive Director, Ivey International Centre for Health Innovation
Email: [redacted]
Office: [redacted]

If you have questions about your rights as a research participant or the conduct of this study, you may contact:

Office of Human Research Ethics
Western University
Email: [redacted]
Office: [redacted]

You do not waive any legal right by consenting to participate. If you have questions about your rights as a research participant, or the conduct of this study, you may also contact:

Patient Experience Office
[redacted]
Online contact form: [redacted]
Office: [redacted]

This letter is yours to keep for future reference.
Version Date: 01/28/2020

CONSENT FORM

Research Title: "Implementation of Care Practices for Chronic Diseases: Successes, best-practices and continued challenges in service delivery for CHF and COPD patients in acute care settings, and recommendations to further value-based healthcare in Ontario"

Researcher: Gabriel A. Huppé, Ph.D. Candidate, Ivey Business School, Western University

Principal Investigator: Dr. [redacted] Assistant Professor and Executive Director of Ivey International Centre for Health Innovation, Ivey Business School, Western University

Statement of Consent: By signing below, I indicate that I have read the Letter of Information, have had the nature of the study explained to me and agree to participate. All questions have been answered to my satisfaction.

Do you consent to being audio-recorded during interviews?

YES ☐ NO ☐

Do you consent to the use of unidentifiable quotes obtained during the study in the dissemination of this research?

YES ☐ NO ☐

Do you agree to have an approximation of your occupational role used in the dissemination of this research?

YES ☐ NO ☐

Participant's Name (Please Print): _____

Participant's Signature: _____

Date: _____

Person Obtaining Informed Consent (Please Print): _____

Person Obtaining Informed Consent's Signature: _____

Date: _____

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3.10.3.5 Non-participant observation guide (cancelled due to COVID-19)

Researchers take one of four main stances in observational research: (1) complete observer, (2) observer as participant, (3) participant as observer or (4) complete participant (Hammersley & Atkinson, 1994). These stances can be located along a continuum represented in Figure 1 below.

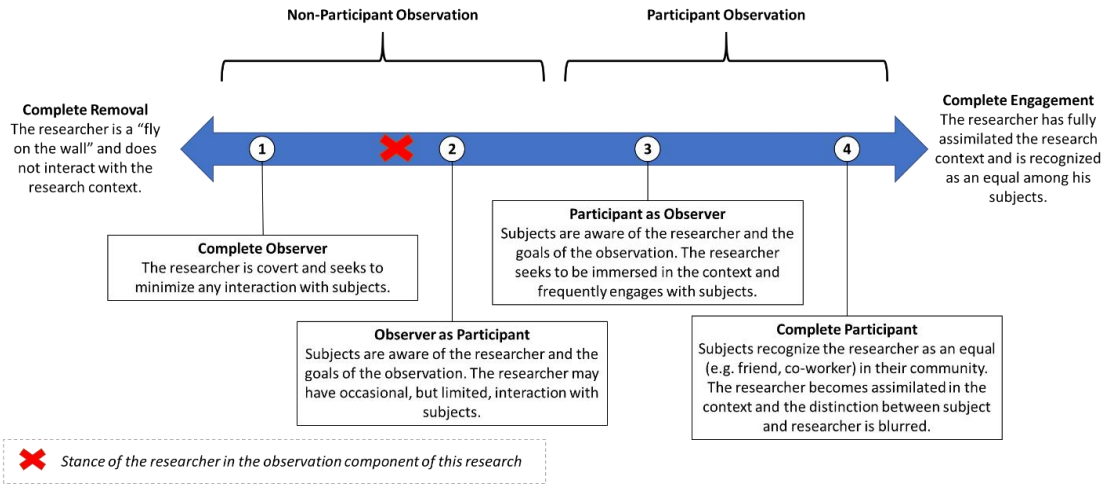

Figure 1: *Four stances in observational research located along a continuum from complete removal to complete engagement of the researcher with the research context*

The researcher will adopt a stance located between complete observer and observer as participant (see Figure 1). Subjects will be aware of the researcher and the goals of the observation. However, the researcher will seek to minimize any interaction, and will mostly behave as a "fly on the wall" throughout observations so as to not intervene or influence the behaviour of clinicians in any way. Clinicians may be asked to engage in "self-talk" during observations if they feel it is appropriate, at their own discretion. The researcher will welcome a limited amount of interaction from clinicians. Following the observation period, the researcher will seek to debrief with clinicians in order to understand the motives for implementing certain care practices observed by the researcher.

3.10.3.6 Patient information sheet (cancelled due to COVID-19)

IVEY Business School

Western UNIVERSITY · CANADA

Patient Information Sheet

Dear Patient,

I am a Ph.D. Candidate at Western University researching the implementation of care practices for chronic conditions.

As part of this research, I am observing nurses and physicians in order to understand their reasoning for adopting certain practices in inpatient care. I want to reassure you that I am not collecting data on individual patients, as my focus is on the nurses and physicians.

It is my hope that this research will help advance understanding of the successes, best-practices and continued challenges associated with care delivery for chronic conditions in Ontario. Observing nurses and physicians as they provide care for patients will be highly valuable.

My role during these observations is to be as discreet as possible. My hope is that nurses, physicians and patients will not pay much attention to my presence in the room or even forget that I am there so that I may observe implementation of practices as it is normally performed.

This research is being undertaken in support of my doctoral dissertation. Please be aware that your autonomy is prioritized over my research. Should you wish for me to leave the room at any time, please let us know and I will be happy to do so.

Thank you for your support,
Sincerely,

Gabriel A. Huppé

Contact information :

Researcher/Co-Investigator: Gabriel A. Huppé	Principal Investigator: [redacted]
Ph.D. Candidate, Ivey Business School, Western University Email: [redacted] Mobile: [redacted]	Assistant Professor, Ivey Business School, Western University Email: [redacted] Office: [redacted]

Version Date: 02/10/2020

3.10.3.7 Research protocol

Implementation of Care Practices for Chronic Diseases:

Successes, best-practices and continued challenges in service delivery for CHF and COPD patients in acute care settings, and recommendations to further value-based healthcare in Ontario

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Researcher: *Gabriel A. Huppé*, Ph.D. Candidate, Ivey Business School

Dissertation Committee: [redacted], Assistant Professor and Executive Director of Ivey International Centre for Health Innovation, Ivey Business School; [redacted] Professor, Ivey Business School; [redacted] Associate Professor and Associate Dean of Research, Ivey Business School

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1. Research Background

The aim of the proposed research is to achieve a better understanding of the successes, best-practices and continued challenges that acute care hospitals have encountered in implementing standardized and evidence-based care practices for CHF and COPD conditions.

1.1 CHF and COPD's burden on the health system

Chronic diseases such as CHF and COPD place a significant burden on health systems, globally. In Canada, it is estimated that about 3.5 % of the population aged 40 years or older have been diagnosed with CHF,[1] while about 10.8 % of the population aged one year or older have been diagnosed with COPD.[2] The chronic nature of these diseases creates a drain on healthcare and financial resources; aside from the prevalence of these diseases, CHF and COPD have high rates of readmissions and relatively long lengths of stay. For instance, a patient admitted to hospital for a COPD lung attack in Canada, in 2010, averaged a 10-day length of stay at a cost of $10,000 per stay.[3] In Canada, about 18 % of patients admitted for COPD are readmitted once within a year and 14 % are readmitted twice.[4] Similarly, 21 % of patients admitted for CHF in Canada are readmitted within a month.[5]

1.2 The importance of standardized and evidence-based care practices

Standardized and evidence-based care practices help improve patient outcomes (e.g. readmissions) and operational efficiencies (e.g. length of stay), and thus play a key role in reducing the health system and financial burden of these diseases. Many hospitals in Ontario have achieved significant improvements in length of stay and readmissions as a result of implementing such practices as care pathways, order sets, discharge planning, coordination of care initiatives, and programs that promote continuity of care in patients' communities. Therefore, their implementation has been critical in advancing the Triple Aim of healthcare: improving patient experience and health outcomes, while reducing costs. They are therefore key to unlocking what renowned business strategist, Michael Porter, has described as value-based healthcare, which is now a major goal of healthcare systems, internationally.

1.3 Objectives of the research project

This research project aims to study Ontario hospitals' successes, best-practices and remaining challenges in implementing standardized and evidence-based practices in acute care settings to achieve simultaneously better health system and financial outcomes. Acute care hospitals bear most of the financial and healthcare burden for these diseases, and are therefore important settings to study and understand the implementation of standardized and evidence-based practices. The study will contribute to a greater understanding of the successes, best-practices and continuing challenges in the implementation of standardized and evidence-based care practices, their contribution to health and financial outcomes,

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[1] **Public Health Agency of Canada**, *Report for the Canadian Chronic Disease Surveillance System: Heart Disease in Canada*, May 2018.
[2] **Public Health Agency of Canada**, *Report for the Canadian Chronic Disease Surveillance System: Asthma and Chronic Obstructive Pulmonary Disease (COPD) in Canada*, March 2018
[3] **Proof Centre of Excellence**, *Quick Facts About COPD*, n.d.
[4] **Canadian Thoracic Society,** *The Human and Economic Burden of COPD: A Leading Cause of Hospital Admission in Canada*, February 2010.
[5] **Canadian Institute for Health Information.** *All-Cause Readmission to Acute Care and Return to the Emergency Department*, 2012.

and recommendations for addressing gaps at the level of the health system as a whole, in order to advance value-based healthcare in Ontario.

2. Research Design

The research will draw from interviews and observations in a representative sample (urban/rural, academic/non-academic) of large acute care hospitals in Ontario. The research sample will focus on "exemplary" hospitals that are currently undertaking efforts to implement or "spread" standardized and evidence-based practices for CHF or COPD, and that have already achieved extraordinary improvements in their care practices and outcomes for CHF and COPD. A focus on exemplary cases allows the research to assess how exemplary hospitals have progressed (successes and best-practices) and the continued challenges they face.

2.1 Approach to sampling and data collection within hospitals

Interviews and observations will be conducted across the following occupational groups: senior leaders, medical directors, physicians and nurses. Interview questions and observations will be geared toward understanding past and current successes, best-practices and challenges.

Data collection will proceed in two phases. The first phase will consist in observing clinicians (physicians and nurses) as they provide acute care services to CHF and COPD patients. This phase of data collection will span a duration of one week per condition, per site. During the course of observations, time will be shared equally among nurses and physicians, whom will be shadowed during a full day's shift. The focus of data collection during observations will be on understanding clinicians' reasoning for adopting certain care practices and interventions in inpatient care. More specifically, it will be focused on the following research questions:

1) At a broad level, how do clinicians determine what evidence-based practices are, and how they incorporate these practices in their care delivery?
2) Whether, how and why do clinicians use standardized care practices such as pathways, order sets and discharge planning?
3) Whether, how and why do clinicians seek to achieve efficiency targets of their organization as pertaining to such areas as length of stay and treatment intensity?
4) What are clinicians' perceptions of the major challenges and best-practices in treating CHF and COPD patients in acute care settings to ensure highest value per cost of care?

The second phase consists in interviewing clinicians and managers. The focus will be on understanding the perspectives of different individuals regarding the respective roles of clinicians and managers during service delivery for CHF and COPD, as well as how clinical and administrative goals ought to be integrated in order to achieve value-based healthcare in the context of chronic disease management in acute care settings. More specifically, it will be focused on the following research questions:

1) What measures of success do clinicians and administrators associate with the management of chronic conditions?
2) What are clinicians and administrators' perspectives on the usefulness of standardized and evidence-based practices in achieving these measures of success?
3) What are clinicians and administrators' perspectives on how clinical and operational/managerial goals relate to each other, and how they should be integrated in practice?

2.2 Approach to data analysis and findings

Data will be analyzed using an inductive, grounded theory approach based on continuous back-and-forth between theory, published empirical evidence and collected data. Findings will be described in a list format (e.g. successes, best-practices, continued challenges), with attention to their implications and associated recommendations. Findings will also be described in a process format that describes interactions between providers, practices and patients under various

organizational and health system conditions found to be salient for the implementation of standardized and evidence-based practices for CHF and COPD, and the achievement of value-based healthcare.

2.3 Confidentiality

As per standard protocol, data collected through this study will be anonymized (at all levels, including the hospital and individuals) and the information provided will be entirely confidential and securely protected. Confidentiality is necessary to ensure, not only the privacy of participants, but also to minimize individual biases in the interviewing and observation process. Confidentiality is a requirement of the research ethics standards governing this research.[6]

3. Research Outcomes

Drawing from theories on organizations, business administration and implementation science in the context of healthcare, this study will have primary and secondary outcomes.

3.1 Publishing

The primary outcome is to publish two research papers: (1) a practitioner-oriented article on the findings, outlining successes, best-practices and challenges and their implications for value-based healthcare in Ontario, with particular reference to current developments in policy and health system trends, and; (2) an academic-oriented article on the findings, with a particular focus on its implication for academic literature on organizational theory as well as its relevance to broader literature on business administration and implementation science in the healthcare context.

3.2 Value-based healthcare

Value-based healthcare in Ontario is still in its early stages, but it is also at an inflection point as the province looks to adopt innovate new approaches and funding models for care delivery in acute and non-acute settings. Therefore, the timing is appropriate to take stock of the experience of hospitals in servicing the CHF and COPD population over the last few years.

3.3 Organization theory

The academic literature on how organizations adopt and implement standardized and evidence-based practices in the healthcare context is still in its relative infancy for chronic disease management, and there is a particular gap in the literature on the experience of hospitals in implementing initiatives related to the Triple Aim of healthcare. Studying the experience of Ontario hospitals in servicing CHF and COPD patients can provide a significant contribution to this literature.

3.4 Debriefing

The secondary outcome of this research is to provide debriefing and feedback to key research stakeholders (e.g. senior leaders, medical directors), reporting on their hospital's own successes, best-practices and challenges in service delivery for the CHF and COPD population. Once the data collection is completed, the researcher will meet with the key sponsors at the hosting organization to debrief and deliver a report on the findings of the research at their hospital (specific findings from other research sites will not be shared). More detailed procedures for debrief can be proposed to the researcher at any time during the research.

4. Next Steps

If you are interested in taking part in this research or have specific questions or concerns, please contact the researcher (Gabriel A. Huppé, email: [redacted]

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[6] **Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, and Social Sciences and Humanities Research**, *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans*, December 2018.

Chapter 4

4 Hospital leader gender identity's effect on organizational responsiveness to women's health issues

4.1 Introduction

Institutional scholars have recently become interested in understanding the impact of leader identity on organizational responsiveness to the demands of external stakeholders (Powell & Colyvas, 2008). A prominent reason for this interest is the belief that leaders mediate how organizations attend to, interpret and therefore respond to their external environment (Finkelstein, Hambrick, & Cannella, 2009). Hogg (2001) argued that leader identity shapes attention, interpretation and other cognitive processes because leaders attempt to conform to and, eventually, internalize the prototypical attributes (e.g., norms, goals, values) of their identity. Hence, a rich conceptual literature has developed to elaborate how leaders' identification with large social categories – for example, ethnicity, gender, sexuality, political ideology – affects leadership and followership processes (Epitropaki, Kark, Mainemelis, & Lord, 2017; Hogg, van Knippenberg, & Rast III, 2012).

Yet theoretical explanations about how leader social identity affects organizations' responsiveness to issues in the external environment has remained largely speculative and untested. Additionally, scholarship in social identity theory has evolved rather separately from relevant traditions in institutional scholarship, such as those concerning resource dependence theory. Therefore, we do not have a good understanding of how leader social identity and organizational resource dependence interact to affect organizational responsiveness to external demands.

In this essay, we ask whether organizations led by women leaders are more likely to be responsive to external demands for hospitals to reduce organizational failures affecting the health outcomes experienced by childbearing women. We also ask whether the relationship between leader gender identity and organizational responsiveness

changes across different gradients of resource dependence. In particular, we investigate the effect of leader gender identity on the reporting and change in medical failures occurring during childbirth in hospitals. Additionally, we investigate the effect of a women leader's perception of her organization's resource dependence on the reporting and change in childbirth medical failures.

Our contributions are threefold. First, by interrogating the role of leader gender identity in organizational responsiveness to external demands, our study is positioned at the micro-foundations of institutional analysis (Powell & Colyvas, 2008; Roberts, 2019), within a neglected yet generative 'border crossing' between institutional and organizational culture scholarship (Hatch & Zilber, 2012). As others before us, we conceive that a leader's behaviours and cognitions are both enabled and constrained by "interpretive, legitimating and material resources" (Chreim, Williams, & Hinings, 2007, p. 1523) provided by the broader institutional context. We provide evidence that leader gender identity can contribute to organizational-level change in practices and outcomes through its effect on organizational culture.

Second, we use social identity theory and resource dependence theory (Pfeffer & Salancik, 1978) to frame our study. This approach allows us to contextualize the influence of leader gender identity within a broader organizational-level construct. We elaborate how organizational resource dependence likely interacts with leader identity in determining an organization's responsiveness to external demands. We reconcile the theoretical prediction that leaders in resource dependent organizations are likely to seek to bolster the social legitimacy of their organization by pursuing ceremonial conformance (Pfeffer, 1981), thus avoiding the substantive requirements of external demands. We provide evidence to suggest that resource dependence creates role incongruities for women leaders (Eagly & Karau, 2002) and attenuates the effect of leader gender identity on organizational responsiveness.

Third, since our research is set in the context of hospitals responding to normative pressures pertaining to childbirth medical failures, we unravel a phenomenon of important practical significance. Over the last several decades, women have continued to

experience significant health issues during childbirth. In Canada, rates of childbirth-related mortality and morbidity have remained similar to their pre-2000 levels whereas in the United States, they have continued to rise since the 1990s. Our findings suggest that increasing the representation of women leaders within the senior leadership ranks of hospitals, more specifically in the position of CEO, may render hospitals more responsive to these issues.

Hospitals are excellent settings for studying how organizations respond to demands from the institutional environment (Reay, Goodrick, & D'Aunno, 2021). Leaders within hospitals are constantly grappling with conflicting goals to ensure high-quality clinical services while maintaining financial priorities, all whilst considering how to respond to the demands of internal and external actors. Internally, hospital leaders must manage the tensions between the different priorities of managerial and clinical subgroups who tend to operate according to different norms, goals and values. Externally, they must manage the legitimacy of their organization by responding to the expectations or requirements of government agencies, accreditation bodies and the broader public.

In the following section, we draw on social identity and resource dependence theories, with a particular focus on the gender and leadership literature, to develop a theoretical model of leader gender identity and organizational responsiveness. We develop hypotheses based on this model. We then empirically investigate hypotheses using latent growth modelling with SEM to test the influence of leader gender identity and resource dependence on baseline reporting levels and subsequent changes in childbirth medical failures over time. Finally, we discuss our findings in relation to their academic and practical implications.

4.2 Theory development

Here we delineate the contributions of social identity and resource dependence theories in predicting how organizations likely respond to demands in the external environment. We focus our review on arguments pertinent to how leader gender identity and organizational resource dependence affect organizational responsiveness to gender-salient external

demands. Our review culminates in a model that integrates the predictions of both theories. We derive several hypotheses based on the theoretical model.

4.2.1 Leader gender identity and organizational responsiveness

As per social identity theory, leaders that are strongly identified with an ingroup are generally more likely to be perceived as effective when they behave in ways that are prototypical of their social identity (Hogg, 2001; Hogg & Gaffney, 2014). Because women leaders are strongly identified with both their minority gender and the organization which they lead, they have what is referred to as a 'cross-cutting' identity (Ellemers & Rink, 2005) and are expected to behave in a manner that is compatible with both their social and organizational identities (Cornelissen, Haslam, & Balmer, 2007). Female leaders are thus predicted to be more likely to advocate for gender-centered practices and outcomes as such a response is more likely to be perceived as being an appropriate exercise of their leadership (Hogg & Terry, 2000).

Women leaders are also expected to behave in ways that are more communal and socially oriented than their male counterparts, whereas male leaders are expected to be agentic, dominant and bottom-line-oriented (Eagly & Karau, 2002). The communal and social orientation of female leaders helps foster an organizational culture that values openness and collaboration which are important for uncovering and learning from failures within organizations (Edmondson, 2011), not in the least those affecting women. Research has demonstrated that psychological safety is needed within organizations so that personnel to feel comfortable reporting failures (Edmondson, 2003) and it is likely that the predispositions and expectations of female leaders (Eagly & Carli, 2007; Williams & Dempsey, 2014.) allows them to develop such a climate.

Normative pressures relating to the promotion of organizational practices and outcomes specific to women and those pertaining to organizational failures are more likely to be perceived as particularly important in organizations led by women (van Knippenberg & Hogg, 2003).

Additionally, women representation among top leadership makes the entire organization more amenable to accepting gender-salient norms as being a distinguishing feature of their organization (Ellemers, de Gilder, & Haslam, 2004). As gender-salient norms, goals and values are re-affirmed by top leadership over time, they become internalized by lower-level organizational members (DeRue, Scott, & Susan, 2010; van Knippenberg & Hogg, 2003). Thus, women leaders help mobilize support for reporting and reducing organizational failures affecting women, at all levels of the organization, not only within top management (Eagly, Karau, & Makhijani, 1995; Meyer, Becker, & Van Dick, 2006).

4.2.2 Resource dependence and organizational responsiveness

Resource dependence theory elaborates how organizations' linkages to external stakeholders affect various aspects of organizational strategy as leaders attempt to respond to the demands of their external environment (Pfeffer & Salancik, 1978). Because organizations obtain resources such as labour, capital and customers from their environment, organizational leaders seek to maintain their organization's legitimacy in the eyes of these stakeholders to facilitate access to the resources they need to function (Deephouse & Suchman, 2008).

Because organizations are embedded in networks of resource dependencies and are therefore often faced with conflicting demands, they prioritize conforming to the demands of the stakeholders whom they perceive as being most critical for their functioning. As Oliver (1991) argues, highly resource dependent organizations resist external demands that their leaders perceive as potentially detrimental to their organization's social legitimacy and economic gain. Organizational resistance (as opposed to responsiveness) often takes the form of ceremonial conformance through decoupling (Greenwood, Raynard, Kodeith, & Micelotta, 2011; Meyer & Rowan, 1977) or symbolic management (Pfeffer, 1981), which enables the maintenance of the organization's legitimacy while avoiding costs associated with substantially conforming with the demands.

Therefore, resource dependent organizations tend to be relatively untransparent about the true pervasiveness of organizational failures (Pfeffer, 1981); by under-reporting organizational failures to the broader public, they can maintain an appearance of appropriate organizational functioning while avoiding conformance costs and a potential decline in legitimacy. Therefore, when leaders overly focus on the bottom-line or their organization's resource dependence, they tend to suppress the reporting of and learning from failures within the organization (Edmondson, 2011).

4.2.3 Theoretical model

The integration of social identity and resource dependence theories yields the model presented in Figure 12. Women leaders are generally more likely to influence their organization to substantially conform to gender-salient demands from the external environment. Yet, in contexts of resource dependence, substantial conformance to these demands may threaten the legitimacy or economic gain of their organization. It may also exacerbate criticism and negative perceptions about the effectiveness and competence of these women leaders as resource dependence encourages ceremonial conformance. Therefore, resource dependence creates role incongruities for women leaders whom must contravene their prototypical preferences for women's issues in order to retain favourable judgements about their ability to lead (Eagly & Karau, 2002). Consequently, in contexts of resource dependence, women leaders find themselves in a 'double bind' that makes them more likely to eschew organizational responsiveness to these demands.

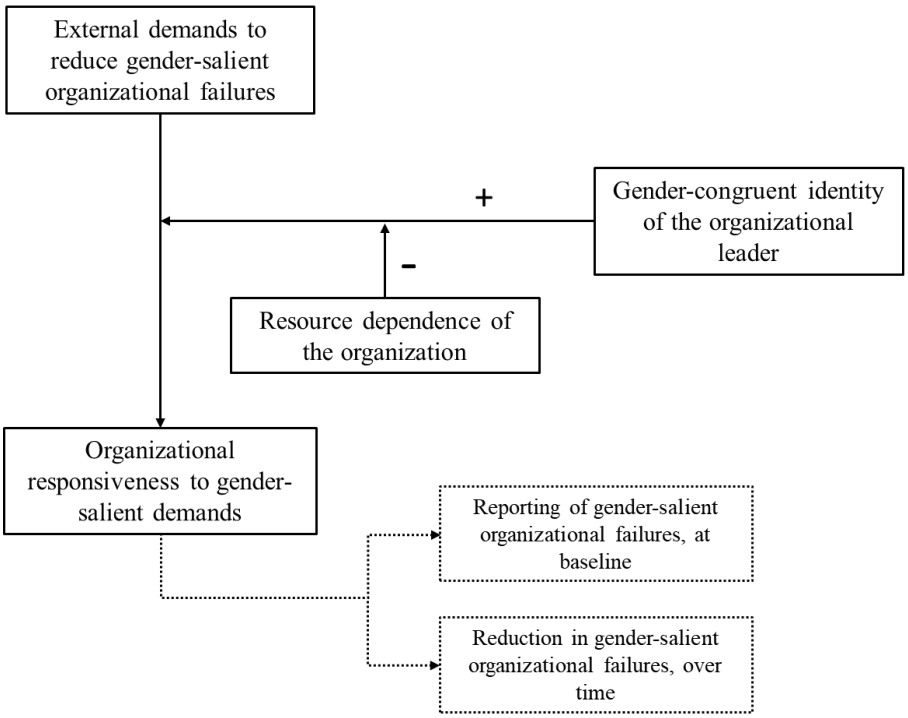

Figure 12: Theoretical model

4.3 Hypotheses

Our overarching proposition is that hospitals led by female CEOs are likely to be more responsive to normative pressures on medical failures affecting women patients in their care, than are hospitals led by male CEOs. We hypothesize that female CEO-led hospitals are more likely to address clinicians' tendencies to withhold information on medical failures affecting women patients in their care and are also more likely to reduce the rate of medical failures affecting women patients in their care, over time.

First, we expect hospital CEO gender to affect baseline reporting levels on medical failures affecting women. The internal dynamics of hospitals tends to discourage clinicians from admitting to medical failures (Tucker & Edmondson, 2003). Many studies have shown persistent under-reporting of medical failures by clinical professionals in hospital settings, including under-reporting of medication errors (Smith, et al., 1996) and adverse events leading to injury or complications (Christiaans-Dingelhoff, et al., 2011). Many medical failures occur during procedures that are specific to women, such as those related to female reproductive health and childbirth (Bohren, et al., 2015; Shorter, 1991).

To reduce the frequency with which such medical failures occur in hospitals, clinicians should feel comfortable reporting medical failures with their unit or departmental leaders so that the root causes of failures can be resolved (Tucker, Nembhard, & Edmondson, 2007). As per social identity-based leadership theory (Hogg, 2001), the gender identity of female hospital CEOs facilitates greater commitment culture of reporting that counteracts the tendency of clinicians to withhold information on medical failures pertaining to women's health. Hospitals led by female CEOs are thus expected to have higher baseline levels of reporting on medical failures affecting women's health outcomes.

Hypothesis 1. *Hospitals led by a female CEO will have a higher baseline level of reporting on medical failures that affect women's health outcomes.*

Second, we also expect hospital CEO gender to affect the rate of change in medical failures affecting women, over time. Hospital leaders have an important role in ensuring that the process of learning from medical failures is one that clinicians find compelling and exciting, instead of threatening and painful (Edmondson, 2003; Edmondson, 2004; Edmondson, Bohmer, & Pisano, 2001). Moreover, hospital leaders help stimulate the climate of implementation (Klein & Sorra, 1996) by affecting clinicians' "shared summary perceptions of the extent to which their use of a specific innovation [clinical guideline] is rewarded, supported, and expected within their organization" (p. 1060). As per social identity-based leadership theory (Hogg, 2001), the gender identity of female CEOs is more conducive to fostering learning from medical failures and a climate for implementation that favours improvement in clinical practices that affect women's health outcomes. Hospitals led by female CEOs are thus expected to experience greater reduction in medical failures affecting women's health outcomes.

Hypothesis 2. *Hospitals led by a female CEO will experience greater rate of improvement in medical failures that affect women's health outcomes.*

While female CEO-led hospitals are likely to conform more substantially to normative pressures on women's health than male-CEO led hospitals, we expect the influence of a female CEO's gender identity to be moderated by her perceptions of her

hospital's resource dependence. Hospitals are subject to strong institutional and technical requirements (Scott & Meyer, 1983) and rely upon legitimacy judgements made by external actors who control resources that hospitals need to successfully operate (Deephouse & Suchman, 2008). Hospitals are therefore highly resource dependent (Pfeffer & Salancik, 1978), which can interact with female CEO-led hospitals' commitments to normative pressures. Therefore, we hypothesize that female hospitals CEOs' perception of their organization's resource dependence can attenuate the effect of their gender identity on their organization's responsiveness to normative pressures.

First, we expect resource dependence to moderate the effect of female CEO's gender identity on baseline reporting levels on medical failures affecting women. Resource dependence causes organizations to seek to withhold information on the practices and outcomes valued by external actors (Pfeffer, 1981), including information on "measures of patients' mortality or morbidity in healthcare" (Scott & Meyer, 1991, p. 136). By under-reporting information on such measures, hospitals can avoid (Oliver, 1991) the normative prescriptions of their environment while maintaining their legitimacy. Therefore, resource dependence creates role incongruence for women leaders who must then eschew gender-centered norms in order to maintain favourable perceptions about their leadership competence and effectiveness within the organization (Eagly & Karau, 2002). As such, the influence of female CEOs' gender identity on baseline reporting on medical failures affecting women's health outcomes is expected to be attenuated by her perception of her hospital's resource dependence. When a female CEO perceives that her organization is highly resource dependent, she is less likely to encourage clinicians to report medical failures.

> ***Hypothesis 3.*** *Hospital CEO gender will interact with resource dependence such that the influence of a hospital CEO's female identity on the baseline level of reporting on medical failures that affect women's health outcomes will be attenuated by her perception of her hospital's resource dependence.*

Second, we expect resource dependence to moderate the effect of female CEO's gender identity on the rate of change in medical failures affecting women, over time.

Female hospital CEOs who perceive their organization to be highly resource dependent will perpetuate a culture of under-reporting of medical failures, thereby hampering quality improvement and other efforts for change (Edmondson, 2004). Therefore, the influence of the gender identity of female hospital CEOs on the rate of improvement in medical failures affecting women's health outcomes is expected to be attenuated by her perception of her hospital's resource dependence.

> ***Hypothesis 4.*** *Hospital CEO gender will interact with resource dependence such that the influence of a hospital CEO's female identity on the rate of improvement in medical failures that affect women's health outcomes will be attenuated by her perception of her hospital's resource dependence.*

4.4 Methods

4.4.1 Research setting

The setting for this research is Ontario (Canada) where, during the 2000s, various initiatives were put in place to create transparency and raise awareness of women's health issues.[6] The Ontario government established a roundtable of academic and health sector experts to develop a hospital performance scorecard and disseminate its results through a series of reports called the Hospital Report Series. The Hospital Report Series would eventually serve as the main vehicle through which hospital reporting on women's health issues in Ontario hospitals would be disseminated. In 2001, the Hospital Report Series started publishing data on childbirth-related practices and outcomes at aggregate provincial-and regional-levels. Around the same time, normative guidelines on

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[6] A national 'Women's Health Surveillance' system was launched by the Canadian government in 1999 to increase understanding of women's health issues (Health Canada, 1999). Further, groups such as the Ontario Women's Health Council, the Institute for Gender and Health (within the Canadian Institutes for Health Research) and the Canadian Population Health Institute were established in 2001 to support research on women's health issues in the Canadian province of Ontario (Hospital Report Research Collaborative, 2002) and address apparent differences in the way women seek, receive and benefit from healthcare (Statistics Canada, 2001).

appropriate clinical care during childbirth were developed and promulgated by various entities, as will be discussed below.

In 2004, the revelatory *Canadian Adverse Events Study* was published, concluding that the incidence of adverse events, defined as unintended injury or complications caused by health care management, occurred in an astounding 7.5 percent of hospital admissions in Canada (Baker, et al., 2004). Consequently, indicators were developed to measure the rate of adverse events during labour and delivery in Ontario hospitals. In 2005, the Hospital Report Series began to report on childbirth-related outcomes at a hospital-level, with a particular focus on adverse events during labour and delivery. Our investigation is centered on hospitals' responses to normative pressures for reducing medical failures during childbirth, as indicated by the rate of adverse events during labour and delivery, between fiscal years 2004/05 and 2006/07.

4.4.1.1 Emergence of normative guidelines and aggregate reporting on women's health issues related to childbirth, pre-2004/05

Around the turn of the millennium, experts at the national and provincial levels had begun developing guidelines on appropriate care before, during and after childbirth to ensure safe labour and delivery (Society of Obstetricians and Gynecologists of Canada, 1997; Caesarean Section Working Group, 2000). To inform these guidelines, the Hospital Report published in 2001 contained childbirth data concerning 'caesarean section rates' and 'rates of vaginal births after caesarean sections' aggregated at the regional and provincial levels. The report also presented high-level information on the level of nursing support to mothers during childbirth. As a sign of things to come, the report stated: "This report is the first in a series that will provide a women's health perspective on the evaluation of hospital performance… Work is underway across the province to describe and explain differences in the way women and men experience the health care system (Hospital Report Research Collaborative, 2001)." Shortly thereafter, the second volume of Hospital Report 2001 was released (Hospital Report Research Collaborative, 2002),

addressing women's health across a broader range of issues by providing regionally and provincially aggregated data.

In the Fall of 2002, the Hospital Report 2002 was released (Hospital Report Research Collaborative, 2002), with women's health issues being integrated into the scorecard, including regionally and provincially aggregated data on 'caesarean section rates' and 'rates of vaginal births after caesarean sections.' Bolstering this work, an enhanced excerpt of the Hospital Report 2002 was released in Fall 2003 through an initiative of the Ontario Women's Health Council (OWHC). The Hospital Report 2002: Women's Health Excerpt issued a series of recommendations for hospitals to consider to improve women's health outcomes related to childbirth. These recommendations included the need to consider the use of tools (e.g. guidelines), the tracking of various measures of quality associated with adverse outcomes during labour and delivery, and the implementation of best practices, including: timely utilization of clinical information concerning patient history, involving patients in decision-making, and appropriate utilization of diagnostic technologies such as ultrasounds and fetal heart monitors (Hospital Report Research Collaborative, 2003). As the OWHC stated in a foreword:

> *"OWHC felt it was important to include a perspective on women's health in the reports because women differ biologically from men and therefore have unique health care needs, having different experiences with the health care system… As such, bias in the health care system itself can sometimes mean that women receive care and treatment that may not adequately address their needs… this excerpt provides an important starting point from which health care providers and managers can begin to identify opportunities for improvement and take appropriate action* (Hospital Report Research Collaborative, 2003, p. vii)*."*

In parallel, the OWHC had undertaken the 'Caesarean Section Best Practices Project' to fully flesh-out recommended practices as per best-available evidence in order to encourage hospitals to "assess their status in relation to critical success factors and recommendations in the report, and develop an action plan to implement 'best practices'…" (Ontario Women's Health Council, 2002, p. 1). The subsequent Hospital Report 2003 released in January 2004 continued to report on women's health issues,

undifferentiated from the preceding reports (Hospital Report Research Collaborative, 2003).

4.4.1.2 Hospital-level reporting on medical failures related to childbirth, 2004/05-2006/07

In September 2005, Hospital Report 2005 (no acute care Hospital Reports were produced for the 2004 edition) reported, for the first time, hospital-level indicators (non-aggregated data) on women's health outcomes, including the risk-adjusted rate of adverse events during childbirth (Hospital Report Research Collaborative, 2005). Hospital-level data on specific women's health issues were featured in a prominent standalone 'Women's Health Perspective' section of the report, and all Ontario hospitals were provided access to a web-based database and analysis tool (e-Scorecard) to help them better understand their performance on a historical and comparative basis. The measure for adverse events during childbirth was developed by an expert panel, and was defined to include uterine ruptures, pulmonary or cardiac events, wound infections, hemorrhages, length of stays greater than two days and other medical failures described in the Women's Health Technical Summary (Porcellato, et al., 2004).

Subsequent Hospital Series Reports published in 2006, 2007 and 2008 continued to report on childbirth-related adverse events at a hospital level (Hospital Report Research Collaborative, 2006; Hospital Research Collaborative, 2007; Hospital Report Research Collaborative, 2008). These reports created transparency on hospital's individual and comparative performance on women's health issues related to childbirth. Together with other filed-level developments which sought to create change and raise awareness on women's health issues such as those occurring during childbirth, they created conditions for hospital managers and clinicians to pay greater attention to processes and outcomes related to childbirth, and implement necessary measures to improve their hospital's performance.

4.4.2 Research approach

We use a latent growth modelling approach to understand the trajectory in childbirth-related medical failures over time. Latent growth modelling is a statistical technique that allows the analysis of repeated, observed measures to identify longitudinal trends by estimating the underlying, yet unobserved (latent), trajectory in this variable (Ployhart & Vandenberg, 2010). Originally developed and commonly applied in psychology research (Curran & Willoughby, 2003), it is becoming more widely used by management scholars to examine organizational-level phenomena (Anderson, Ramanujam, Hensel, & Sirio, 2010; Jokisaari & Nurmi, 2009; Riaz, Rowe, & Beamish, 2014). The application of structural equation modelling (SEM) to latent growth analysis provides an intuitive and well-developed method to examine change in a variable over several points in time, as reflected by several parameters of growth. At a minimum, these include the intercept and slope (for linear growth), to which quadratic or cubic factors can be added to model non-linear growth trajectories with four and five time points respectively (Bollen & Curran, 2006).

We use latent growth modelling because it has several advantages over other research approaches. First, latent growth modelling can accommodate cases with partially missing data for the outcome variable and covariates. Second, because it uses SEM, it allows for the incorporation of latent variables as covariates within a conditional latent growth model. Third, it is exceptionally well suited to the analysis of growth trajectories over time. We first run an unconditional latent growth model to estimate the general trajectory in these variables over time. Secondly, we use a conditional latent growth modelling approach that incorporates CEO gender and other covariates. We used MPlus 8.4 for these analyses, which uses maximum likelihood estimation by default to deal with missing data. Of our original sample of 117 hospitals, 35 had missing data on all outcome variables and were dropped from the analyses of childbirth-related adverse events (N=82). From the correlation matrices shown in Appendix Tables 19 and 20, we see that

a hospital's rate of medical failures as measured by adverse events during labour and delivery in years 1 through 3 (AEY1-3) is correlated within different points in time.[7]

4.4.3 Outcome variable

4.4.3.1 Medical failures during childbirth, 2004/05-2006/07

Medical failures during childbirth are measured using the rate of adverse events during labour and delivery. The adverse events indicator was defined through a panel of 19 women's health experts (department heads/chairs/chiefs of obstetrics, gynecology and other specialties related to women's health) convened for the purpose of developing indicators for the Hospital Report Series (Porcellato, et al., 2004). The indicator was developed through an elaborate process involving systematic literature review, two rounds of Delphi panel consultations with women's health champions across 80 Ontario hospitals, and multiple iterative rounds of expert panel decision-making to select, reduce, and validate indicators during the development process. This indicator development process began in April 2004 and ended in August 2005.

The proportion of women in labour and/or delivery who experience adverse events was defined as follows. Adverse events are normally identified by looking at type 2 diagnoses, but the identification of adverse events during labour and delivery is an exception to that rule due to how those events are typically recorded in hospitals. Because labour and delivery patients can have a short length of stay, type 1 and type 2 diagnoses are often used interchangeably. Therefore, diagnosis typing criteria were not used to identify adverse events during labour and delivery. Instead, adverse events were identified by relying on obstetrical codes that fall under the sixth-digit subclassification for 'Delivered, with mention of postpartum condition' (Porcellato, et al., 2004). Further, since there is no post-partum code under this category, codes within the sixth-digit

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[7] As per the latent growth modelling approach with SEM, adverse events during labour and delivery in years 1 through 3 (AEY1-3) are items that load onto the two latent growth factors: intercept and slope. Therefore, correlation between these repeated measures of childbirth-related adverse events is a good indication that a linear growth model may be appropriate.

subclassification for ‘Delivered, with or without mention of antepartum condition' were also used. Codes were selected for the following diagnosis types: endometritis, organ failure or dysfunction, sepsis, uterine rupture, eclampsia, pulmonary or cardiac event, renal failure, urinary tract infection, wound infection, hemorrhage, and a length-of-stay greater than 2 days. If a patient was admitted for delivery and was reported as having experienced any of these episodes, then that patient is considered to have experienced an adverse event. The rate of adverse events during labour and delivery was calculated by dividing the number of patients that were coded with those diagnoses by the number of patients admitted for delivery.

Finally, the indicator was risk-adjusted in order to “take into account differences in patient characteristics that may vary systematically among hospitals” (Porcellato, et al., 2004, p. 33). This risk-adjustment procedure removed the influence of pre-existing medical conditions. A logistic regression was used to estimate the functional relationship between the rate of adverse events during labour and delivery as a linear combination of predictor variables among all Ontario hospitals. The predictor variables included age (categorical: <35; >=35) and Elixhauser co-morbidity variables for: conduction disorders, chest conditions, neurological disorders, gestational diabetes, hypothyroidism, coagulation disorders, obesity, anemia and neurotic disorders (Elixhauser, Steiner, Harris, & Coffey, 1998). The observed rate of adverse events during labour and delivery for a given hospital was then adjusted by: first, dividing it by the rate of adverse events that is expected given the age and Elixhauser co-morbidity scores of patients admitted for delivery; and, second, multiplying by the average provincial rate of adverse events during labour and delivery. Such risk-adjustment procedures help to control for the effects of pre-existing influences, and therefore makes the rate of adverse events during labour and delivery more comparable among hospitals with different patient populations.

The hospital-level data on adverse events during labour and delivery was released in the 2005, 2006, 2007 and 2008 editions of the Hospital Report Series, which published data for the years 2003/04, 2004/05, 2005/06, 2006/07, respectively. We exclude the 2003/2004 data (from the 2005 Hospital Report edition) and draw on the 2006, 2007 and 2008 editions exclusively for the analysis of our outcome variable. Released on

September 2005, the 2005 Hospital Report served the role of catalyst. With its expert panel indicator development process and Delphi panel hospital consultations for the adverse events in labour and delivery indicator spanning April 2004-August 2005, it signaled greater transparency on childbirth related adverse events moving forward. Thus, we took the 2004/05 childbirth-related adverse events data as representing Year 1 – the baseline level of childbirth-related adverse events performance – and the years 2005/06 and 2006/07 as representing Years 2 and 3, time periods when hospitals were expected to seek to improve their performance over time. Hospital-years that have no reports of childbirth-related adverse events were entered as missing data.

We identified an outlier in year 1 and year 3, respectively, on the right-hand side of the distribution. In order to ensure the efficiency of our analysis, we addressed these outliers through winsorization by reducing their value to the value of the second largest datapoint plus 0.6. After winsorization, the rate of adverse events during labour and delivery was approximately normally distributed within the conventionally accepted range of ± 2 standard errors of skewness and kurtosis (Hahs-Vaunghn & Lomax, 2020).

Table 14: Skewness and kurtosis of childbirth-related adverse events by year

	Skewness	**Kurtosis**
Adverse Events in Year 1 (AEY1)	1.31	1.33
Adverse Events in Year 2 (AEY2)	1.02	0.33
Adverse Events in Year 3 (AEY3)	1.51	1.97

4.4.4 Covariates

4.4.4.1 Female CEO, 2004/05

The gender of a hospital's CEO was identified through the Ontario Government's public sector salary disclosure compendium. In Ontario, the Public Sector Salary Disclosure Act requires that all organizations that receive public funding from the Ontario Government disclose the names, positions, salaries and taxable benefits of employees paid a salary of $100,000 or more. We used the names of hospital CEOs listed in this dataset to identify

the gender of hospital CEOs. In rare cases where a hospital's CEO was not included in this list or additional information was needed to determine gender, we used the annual report of the hospital and internet searches. We identified CEO gender for all hospitals during calendar year 2004 for all hospitals in our dataset.[8] CEO gender, as with the other covariates included in the conditional latent growth model, is a time-invariant variable because it represents an initial condition as per the requirements of latent growth modelling. The variable was coded in a binary fashion, with female CEO-led hospitals coded as 1 and male CEO-led hospitals coded as 0.

4.4.4.2 Perception of resource dependence, 2004/05

We rely on a perceptual measure of resource dependence using the results of a survey of Ontario hospital CEOs conducted in February-March 2004. The 2004 Strategic Priorities Questionnaire (Brown, et al., 2005) was designed to complement the Hospital Report Series by identifying key strategic priorities of individual Ontario hospitals as perceived by their CEO. The survey was designed through extensive literature review and findings from the Hospital Report Series' past expert advisory panels. The questionnaire and accompanying instructions were sent to the CEOs of all acute care hospitals in Ontario, and achieved a response rate of 82% among all Ontario hospitals: 93% among large community and teaching hospitals (a total of 76 respondents); 68% among small hospitals (a total of 26 respondents). Responses were collected on 73 potential strategic priorities to assess the extent to which CEOs perceived them to be important to their hospital's

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[8] Our time-invariant measure of CEO gender should be empirically interpreted as an 'initial condition' that influences both the baseline reporting level (year 1) as well as subsequent changes in childbirth-related adverse events occurring in years 2 and 3 of the study. While a small minority of hospitals (six hospitals in year 2, seven hospitals in year 3) experienced a turnover in their CEO (only two of which involved a gender turnover from a male CEO to a female CEO), the initial condition likely exerted a path dependent effect; the reporting of and learning from medical failures is a routinized aspect of clinicians' work that remains embedded in organizational patterns despite CEO turnover. None of the hospitals experienced a turnover from a female CEO to a male CEO.

strategic direction in the next five years (4-point scale: 0 = not important, 1= somewhat important, 2 = important, 3 = very important).

Perceived resource dependence was first modeled as a continuous latent variable using SEM, with three 'strategic importance' indicators: importance of external relations, importance of fundraising and importance of patient relations. These indicators were measured as the average across select survey questions (see indicators and questions in Table 15). The standardized factor loadings for these indicator variables were 0.663 and above, and the r^2 statistics were 0.439 and above. Because we were primarily interested in analyzing how perceived resource dependence and CEO gender interact in predicting childbirth-related adverse events baseline reporting levels and change over time, we converted the latent variable into factor scores using MPlus. Using factor scores as a covariate, instead of the latent variable itself, allowed us to incorporate the interaction term into the full conditional latent growth model without losing the ability to obtain fit statistics.

Table 15: Perceived resource dependence (PRD) latent variable

Indicator	**Survey questions**	**Factor loading**	**r^2**
Importance of external relations	1. Importance of government relations 2. Importance of volunteer relations 3. Importance of community relations 4. Importance of collaboration with academic and training facilities for human resource planning 5. Importance of involving community advisory groups in corporate decision-making 6. Importance of public relations/marketing 7. Importance of relations with other healthcare providers or facilities 8. Importance of relations with professional healthcare colleges/associations and other industries 9. Importance of relations with academic institutions affiliated	0.925	0.855

	with recognized programs in health-related fields		
Importance of fundraising	1. Importance of focus on donations and fundraising efforts 2. Importance of donor relations 3. Importance of increasing fundraising efforts	0.663	0.439
Importance of patient relations	1. Importance of engaging patients/consumers in health and healthcare and knowledge perception 2. Importance of engaging patients/consumers in rights and responsibilities 3. Importance of involving patients/consumer in program planning/evaluation and/or corporate governance issues 4. Importance of innovations in high-quality patient care delivery 5. Importance of focus on performance measurement for quality improvement 6. Importance of focus on patient satisfaction issues 7. Importance of implementing an electronic patient health record	0.799	0.639

Notes: Standardized loadings are reported. There are no fit statistics to report since the model is exactly identified. N=101

4.4.4.3 Teaching status, 2004/05

Teaching hospitals differ from non-teaching hospitals in significant ways. They are responsible for providing extensive education and training to current and future healthcare professionals, and are often engaged in medical research. Teaching hospitals are usually affiliated and co-located with universities in more urban areas. Compared to non-teaching hospitals, teaching hospitals usually deliver more complex care, are at the forefront of evidence-based medical practices, and have higher quality care. A study of hospitals' responses to an inter-organizational system for sharing data about medication errors in Pennsylvania (Anderson, Ramanujam, Hensel, & Sirio, 2010) has shown that teaching hospitals tend to have significantly higher baseline reporting levels of medication errors, relative to non-teaching hospitals. Additionally, teaching hospitals tended to have greater rates of reduction in medication errors over time than non-teaching

hospitals. Teaching hospitals also increased their use of corrective actions over time at a higher rate than non-teaching hospitals, presumably in an effort to improve clinical practices and reduce medication errors. In the case of medical failures related to childbirth, it is reasonable to expect that teaching hospitals will have higher baseline reporting of adverse events during labour and delivery because they typically have more complex cases and better reporting practices. Teaching hospitals' desire to be at the forefront of evidence-based practices may also cause them to experience greater rates of improvement over time. We measured the teaching status of hospitals in a binary fashion at year 1 (2004/05), with teaching hospitals coded as 1 and non-teaching hospitals coded as 0. Teaching status is defined as per the Ontario Joint Policy and Planning Committee (2004) formula and is indicated in the Hospital Report Series.

4.4.4.4 Size, 2004/05

Size is commonly included as a control variable in empirical studies of organizational performance and change. Hospitals that are greater in size tend to have greater levels of medical failures as indicated by such measures as clinical negligence claims by patients (Ellwood & Garcia-Lacalle, 2015) and reported medication errors by clinicians (Anderson, Ramanujam, Hensel, & Sirio, 2010). Larger hospitals also tend to be more bureaucratic and have greater complexity of operations, which makes the implementation of new clinical practices and improvement in clinical outcomes more difficult (Shortell, et al., 1995; Weiner, Shortell, & Alexander, 1997). Therefore, it is reasonable to expect that larger hospitals would experience difficulties in reducing the rate of medical failures. We measured size by the number of acute care hospital beds during year 1 (2004/05).

4.4.4.5 Total margin, 2003/04

Total margin and other measures of financial viability are commonly included as control variables in empirical studies of organizations' social performance. It is expected that organizations with superior financial performance have slack resources that can more easily be invested into activities that contribute to greater social performance (Amato & Amato, 2007; Waddock & Graves, 1997). Therefore, organizations that are more financially viable have greater discretion to respond to demands from the institutional

environment (Bourgeois III, 1981) in areas that include responsiveness to women's health issues. Total margin measures the extent to which a hospital's total revenues exceed its total expenses, with a positive value indicating financial surplus and negative value indicating financial deficit. Since revenues in Ontario hospitals were fixed by global budgets provided annually by the provincial government, hospitals with a positive total margin are better able to "provide funds to acquire equipment, meet increases in patient need and volume and improve the quality of care" (Hospital Research Collaborative, 2007, p. 46). Hence total margin can indicate whether a hospital has the resources available to pursue improvement in the clinical services they provide to women during childbirth. Research has shown that hospitals' financial motivations impact whether clinical standards for childbirth procedures are implemented in a manner that reduces risks for patients (Goodrick & Salancik, 1996). Therefore, it is reasonable to expect that hospitals that are more financially viable will be more responsive to normative pressures to improve outcomes for women during childbirth. Total margin was measured according to the Financial Quadrant Research Team formula (Glussich, et al., 2007). Total margin was lagged by one year (2003/04) because we expected hospitals to consider the financial surplus or deficit from the previous year when determining how to respond to normative pressures on women's health issues.

4.5 Results

4.5.1 Unconditional latent growth model

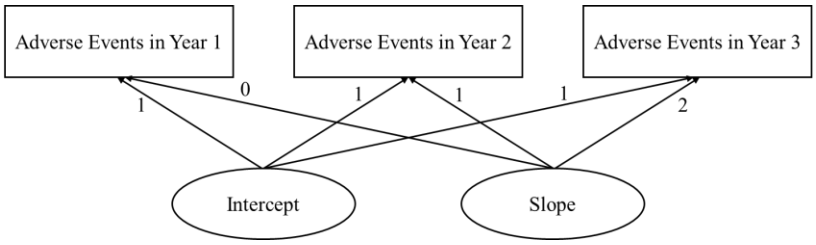

Figure 13: Unconditional latent growth model for childbirth-related adverse events in hospitals

In order to test the appropriateness of a linear growth trajectory, an unconditional latent growth model was estimated using the linear growth modelling approach with SEM. The

linear growth model for childbirth related adverse events fit the data well with χ^2 (1) = 1.396, CFI = 0.997 and RMSEA=0.070 as per maximum likelihood estimation, and χ^2 (1) = 1.272, CFI=.995, TLI= 0.985 and RMSEA=0.058 as per maximum likelihood robust estimation.

Tests of significance for the unconditional linear growth model of childbirth-related adverse events found a significant intercept mean (2.551; $p < 0.001$, ML and MLR), but insignificant mean for the slope value. The significant intercept mean indicates that the average level of baseline reporting among all hospitals (led by male or female CEOs) in our study is significantly different from 0. The non-significance of the slope mean indicates that there is no meaningful group linear change in adverse events over time. Additionally, significant intercept variance (2.122; $p < 0.001$, ML; $p < 0.01$, MLR) was found, indicating that hospitals differed significantly in their baseline level of reporting on childbirth-related adverse events. This provides justification for the incorporation of covariates in a conditional latent growth model to identify the effects of variables that account for this inter-hospital variability.

Table 16: Unconditional latent growth model estimates for childbirth-related adverse events (N=82)

	Estimate	**Standard error (ML)**	**Standard error (MLR)**
Intercept Mean	2.551	0.187***	0.194***
Intercept Variance	2.122	0.527***	0.630**
Slope Mean	-0.106	0.070	-0.072
Slope Variance	0.175	0.201	0.300
Intercept/Slope Covariance	-0.056	-0.209	0.298

Conventional estimation (ML) fit statistics: χ^2 (1) = 1.396, p-value = .237; CFI = .997; TLI = .991; RMSEA (90% CI) = .070 (.000–.312)

Conservative estimation (MLR) fit statistics: χ^2 (1) = 1.272, p-value = .259; CFI = .995; TLI = .985;

RMSEA (90% CI) = .058 (.000–.306)

†p<0.10; *p<0.05; **p<0.01; ***p<0.001

4.5.2 Conditional latent growth model

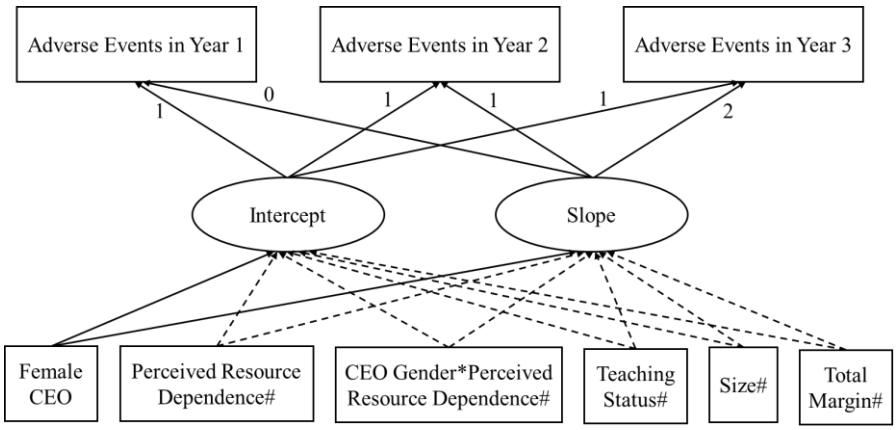

Figure 14: Conditional latent growth model for childbirth-related adverse events in hospitals

Note: #Covariates other than 'Female CEO' are only included in the full conditional latent growth model.

In order to explain variance in the intercept and slope values in the unconditional latent growth model, we ran two conditional latent growth model that incorporates covariates that are theoretically meaningful in predicting the intercept and slope factors. The conditional latent growth model estimates for childbirth-related adverse events provides evidence as to the role of hospital CEO gender and its interaction with the CEO's perception of resource dependence in explaining both the baseline reporting levels (intercept) and change in adverse events over time (slope).

The first conditional latent growth model incorporates hospital CEO gender as a single predictor of the intercept and slope, and finds that hospitals led by female CEOs had significantly higher baseline levels of reporting of childbirth-related adverse events and greater reduction in childbirth-related adverse events over time. Hospitals led by female CEOs reported 1.329 (p<0.01, ML; p<0.05, MLR) more baseline-levels of childbirth-related adverse events than those led by male CEOs at year 1. It also suggests

that female CEO-led hospitals experienced a greater linear reduction in childbirth-related adverse events per year than male CEO-led hospitals, during the span of our study (-0.424; p<0.05, ML; p<0.10, MLR). These results support the predictions of social identity-based leadership theory described in hypotheses 1 and 2, respectively. Overall, the conditional latent growth model with CEO gender as a covariate fit the data well according to the various fit statistics.

Table 17: Conditional latent growth model estimates for childbirth-related adverse events with CEO gender as covariate (N=82)

	Estimate	**Standard error (ML)**	**Standard error (MLR)**
Intercept ←			
Female CEO	1.329	0.506**	0.648*
Slope ←			
Female CEO	-0.424	0.187*	0.222†
Intercepts			
Intercept	2.346	0.193***	0.193***
Slope	-0.036	0.073	0.073

Conventional estimation (ML) fit statistics: χ^2 (2)=1.949, p-value=.377; CFI=1.000; TLI=1.000; RMSEA (90% CI =.000 (.000–.217)

Conservative estimation (MLR) fit statistics: χ^2 (2)=1.739, p-value=.419; CFI=1.000; TLI=1.000; RMSEA (90% CI)=.000 (.000–.210)

†p<0.10; *p<0.05; **p<0.01; ***p<0.001

The second conditional latent growth model incorporates all covariates. With these additional covariates, the model suggests that the hospital CEO gender has a larger and more significant effect on both the intercept and slope. Estimates suggest that hospitals led by female CEOs reported 2.158 (p<0.001, ML and MLR) more baseline-levels of childbirth-related adverse than those led by male CEOs at year 1. It also

suggests that, compared to male CEO-led hospitals, female CEO-led hospitals experienced a -0.491 ($p<0.01$, ML; $p<0.05$, MLR) greater relative reduction in childbirth-related adverse events per year. These results strengthen the level of support for hypotheses 1 and 2.

Additionally, results from the full conditional latent growth model suggests that a female CEO's perception of her hospital's resource dependence has a significant effect on her hospital's baseline reporting levels and change in childbirth-related adverse events over time. The perception of resource dependence among female CEO-led hospitals had an attenuating effect on these hospitals' baseline level of reporting (-3.516; $p<0.01$, ML and MLR) and annual change (1.438; $p<0.01$, ML; $p<0.05$, MLR) in childbirth-related adverse events. These results support the predictions of resource dependence theory described in hypotheses 3 and 4.

Results also suggest that teaching status and size are significant predictors of baseline reporting of childbirth-related adverse events. Teaching hospitals and hospitals that are smaller in size are associated with higher baseline levels of reporting of childbirth-related adverse events. However, change in childbirth-related adverse events over time does not vary significantly with teaching status, hospital size or total margin. Overall, the full conditional latent growth model fit the data well according to the various fit statistics.

Table 18: Conditional latent growth model estimates for childbirth-related adverse events with all covariates (N=70)

	Estimate	**Standardized estimate**	**Standard error (ML)**	**Standard error (MLR)**
Intercept ←				
Female CEO	2.158	0.548	0.465***	0.511***
PRD	0.582	0.167	0.439	0.325†
Female CEO*PRD	-3.516	-0.366	1.262**	1.256**
Teaching Status	2.335	0.593	0.530***	0.553***

Size	-0.003	-0.389	0.001**	0.001**
Total Margin	0.005	0.018	0.036	0.034
Slope ←				
Female CEO	-0.491	-0.582	0.179**	0.214*
PRD	-0.211	-0.282	0.175	0.169
Female CEO*PRD	1.438	0.699	0.486**	0.523*
Teaching Status	0.142	0.168	0.203	0.112
Size	0.001	0.311	0.000	0.000
Total Margin	0.016	0.254	0.015	0.017
Intercepts				
Intercept	2.521	1.913	0.270***	0.320***
Slope	-0.281	-0.994	0.109*	0.143†

Conventional estimation (ML) fit statistics: χ^2 (7)= 6.546, p-value=.478; CFI=1.000; TLI=1.000; RMSEA (90% CI =.000 (.000–.141)

Conservative estimation (MLR) fit statistics: χ^2 (7)= 8.499, p-value=.291; CFI=0.988; TLI=0.964; RMSEA (90% CI)=.055 (.000–.164)

†p<0.10; *p<0.05; **p<0.01; ***p<0.001

4.6 Discussion

We set out to examine the influence of the gender of hospitals' CEOs on their organization's responsiveness to women's health issues. Our analysis suggests that CEO gender explains significant inter-hospital differences in both baseline reporting levels and change in childbirth-related adverse events. Findings provide support for our hypotheses in accordance with the predictions of social identity-based leadership theory (Hogg, 2001). We find that hospitals led by female CEOs tend to have greater baseline levels of reporting on childbirth-related adverse events and reduction in these adverse events over time (Figure 15). Thus, the primary contribution of this study has been to draw attention to the role of the gender identity of leaders on their organization's responsiveness to gender norms from their environment.

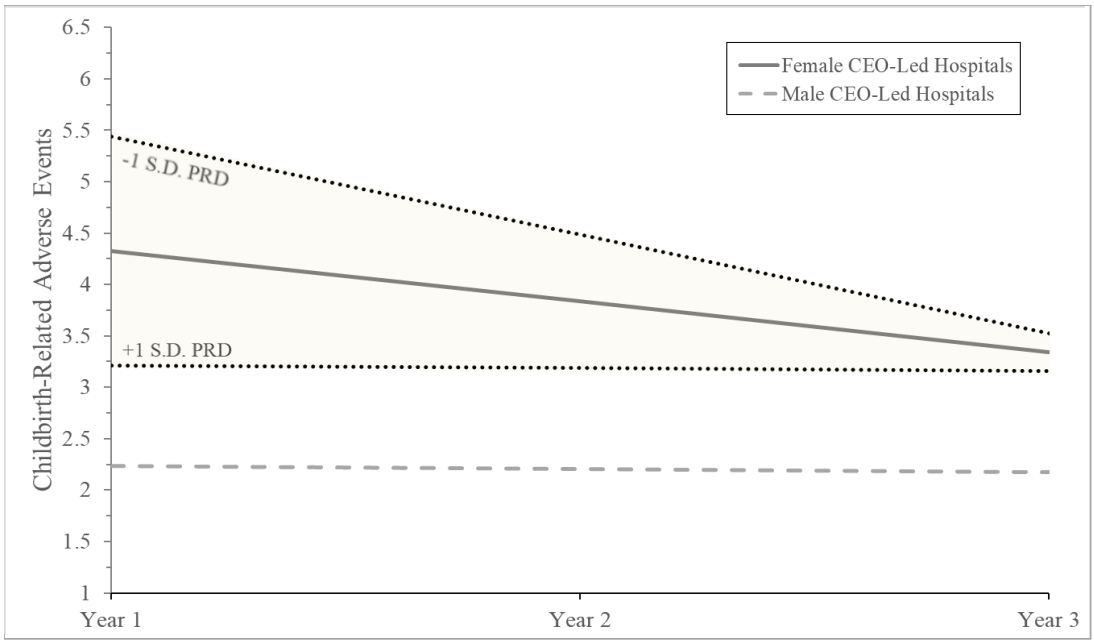

Figure 15: Trajectory of childbirth-related adverse events in female and male CEO-led hospitals

Notes: -1 S.D. PRD refers to the intercept and slope of childbirth-related adverse events among female CEOs with -1 standard deviation in perceived resource dependence (PRD). +1 S.D. PRD refers to the intercept and slope of childbirth-related adverse events among female CEOs with +1 standard deviation in perceived resource dependence (PRD).

These findings have important implications for the study of identity from the perspective of institutional theory. Institutional theorists have traditionally addressed the heterogeneity in organizations' responsiveness to field processes by drawing on the resource dependence perspective (Dowling & Pfeffer, 1975; Pfeffer & Salancik, 1978). However, resource dependence theory offers competing predictions. On the one hand, resource dependence theory implies that organizations with a high degree of dependence on external actors are less likely to actively resist institutional pressures (DiMaggio & Powell, 1983; Oliver, 1991). On the other hand, resource dependence theory also implies that resource dependent organizations such as hospitals can manage their normative legitimacy (Suchman, 1995) by withholding information on the practices or outcomes valued by external actors (Pfeffer, 1981).

Therefore, in contexts where the withholding of information is likely to be commonplace, resource dependence theory ought to be complemented by more micro-level theories so that we may better understand or predict the nature of organizations' responsiveness to normative pressures. Our study suggests that social identity-based leadership is one such micro-institutional aspect that can help explain divergences in resource dependent organizations' responsiveness to normative pressures within organizational fields (c.f. DiMaggio & Powell, 1983). For instance, Kellogg's (2009) ethnographic studies of the effects of the 'iron man' identity of surgeons on their implementation of new regulatory requirements provides a window into how gender-related identities of organizational actors influence organizational responses. Our study suggests that the gender identity of top managers may also affect the strategic responses of organizations. In particular, where the gender identity of top managers is salient, an organization may substantially conform to gender-centered norms rather than ceremonially conforming through decoupling (Meyer & Rowan, 1977). Yet, while top managers' identity may influence their organizations' responsiveness to identity salient issues that emerge in their organization's institutional environment, the extent of this responsiveness may be attenuated by their perceptions of their organization's resource dependence.

Our study also has practical implications. While there has been growing recognition about the importance of women's health issues, particularly in relation to reproductive health and childbirth, there has been remarkably little progress in the health outcomes experienced by women during childbirth over the last 20-30 years. In parallel, women remain under-represented in the medicine profession and in health care management more broadly, and those that do work in medicine face persistent bias and discrimination when compared to their male counterparts (Kang & Kaplan, 2019). Our findings suggest that improving female representation at the executive level of healthcare organizations may counteract these prevailing trends. Clinicians in hospitals with female CEOs may be more likely to report errors and problems that occur in the process of caring for women during childbirth, and more likely to exert the effort required to improve related clinical practices and outcomes.

We know from scholarship on organizational responses to the employment equality/ affirmative action (Dobbin & Sutton, 1998) and corporate environmentalism (Hoffman, 1997) movements that organizations are transformed as a result of internal actors who champion the cause of a movement among members at different levels of the organization. Yet, those movements were associated with specific organizational functions (human resources, environmental engineering) and therefore internal movements were initiated as organizations established dedicated offices staffed by actors who eventually internalized the movement and became internal champions. When normative requirements are associated not with an organizational function, but with a specific identity, internal activism may be driven by individuals who hold intergroup identity and can advocate for their ingroup. For instance, scholarship has shown that organizational responses to the gay rights movement has been driven by LGBT employees who used various tactics to mobilize internal actors (Scully & Creed, 2005). Similarly, women's health issues are not associated with a specific organizational function, but with a gender identity that is held by female leaders and healthcare workers. Increasing female representation within the leadership of hospitals can help improve hospitals' responsiveness to women's health outcomes because such an organizational response is congruent with the prototypical behaviours associated with their gender identity.

4.7 Conclusion

We extended the empirical body of work on social identity-based leadership by examining how the gender identity of leaders affects gender-centered outcomes for non-employee stakeholders of the organization. Our findings provided supportive evidence for the influence of CEO gender on hospitals' responsiveness to normative pressures on women's health issues. Though female CEOs' perceptions of their organizations' resource dependence lessened the extent of their hospitals' responsiveness to these pressures.

These findings offer support for the predictions of social identity theory but should be interpreted with caution. For instance, we do not know whether the extent to which results are due to female CEO's preferences for stronger 'ethics of care' (Blau,

1977). Findings may be driven by female CEOs' inclination to further the interests of various underserved groups and limit medical failures more broadly (Ellwood & Garcia-Lacalle, 2015), rather than a specific focus on women. To further substantiate the influence of CEO gender on hospitals' gender-centered outcomes, future research could investigate whether hospitals led by male and female CEOs differ in their responsiveness to health issues specific to men (e.g. prostate cancer, HIV/AIDS).

Further, we have not investigated *how* female CEOs influence their hospital's level of commitment. How do female CEOs influence decision-making processes among the top management team as it attends to and interprets gender-centered norms in their environment? How do female CEOs use their identity during intergroup negotiations on women's health issues and to what effect? How do female CEOs influence the climate or culture of their organization to encourage clinicians to more freely report information on medical failures they make as they care for female patients? These questions await future research.

Further, we do not know whether women leaders in our study were more likely to be hired into precarious leadership positions, a phenomenon known as the 'glass cliff' (Ryan & Haslam, 2007). Research has shown a tendency for some organizations to hire women into leadership positions during periods of crisis when the chances of faltering performance is strongest (Ryan, et al., 2016). During the time period of our study, there was minimal turnover of hospital CEOs. In the preceding time period, were decisions to promote women into the CEO role linked to a perception of crises linked to clinical failures? It is a possibility but given the historically low turnover rate in hospital CEOs, even amidst rising societal concern about clinical failures and women's health equity, it does not appear likely that women CEOs were hired specifically to address these crises.

Additionally, other factors likely interact with a CEO's gender identity, aside from the perception of resource dependence, to affect a hospital's commitment to women's health issues. At the CEO level, these factors could include length of tenure, clinical or administrative background, and membership in various external communities. A hospital may also experience broader organizational-level challenges that impede the

implementation of normative guidelines, such as problems with information systems or the skills of clinical personnel.

Finally, empirical research has shown that gender representation within the board of directors can have an important influence on organizational commitment. For instance, organizations with greater female representation at the level of the board of directors tend to have greater levels of ethical or social performance (Isidro & Sobral, 2015; Rao & Tilt, 2016; Williams, 2003). Male CEO-led hospitals with greater female representation at the board-level may be as responsive to women's health issues, irrespective of CEO gender.

4.8 References

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4.9 Appendix

4.9.1 Tables

Table 19: Descriptive statistics for the unconditional latent growth model and conditional latent growth model with CEO gender as covariate

	Variable	N	Mean	SD	1	2	3	4
1	**AEY1**	71	2.41	1.63	1.00			
2	**AEY2**	77	2.51	1.69	0.71	1.00		
3	**AEY3**	79	2.32	1.66	0.73	0.81	1.00	
4	**Female CEO**	82	0.13	0.34	0.29	0.14	0.10	1.00

Table 20: Descriptive statistics for the full conditional latent growth model

	Variable	N	Mean	SD	1	2	3	4	5	6	7	8
1	**AEY1**	65	2.36	1.62	1.00							
2	**AEY2**	66	2.38	1.65	0.68	1.00						
3	**AEY3**	67	2.09	1.44	0.75	0.78	1.00					
4	**Female CEO**	70	0.13	0.33	0.35	0.23	0.22	1.00				
5	**PRD**	70	0.02	0.38	0.07	-0.03	0.04	0.13	1.00			
6	**Teaching status**	70	0.13	0.33	0.36	0.39	0.49	-0.02	0.05	1.00		
7	**Size**	70	202.5	164.27	0.01	0.08	0.12	0.07	0.16	0.56	1.00	
8	**Total margin**	70	2.09	4.61	-0.01	0.04	0.10	-0.13	-0.10	-0.02	-0.14	1.00

Chapter 5

5 Discussion and conclusion

This dissertation set out to explore contemporary perspectives on the antecedents and consequences of hospitals' responses to institutions. Drawing from prior work in institutional theory and using Ontario hospitals as my research setting, I studied why and how hospitals responded heterogeneously to institutional demands for energy conservation and climate mitigation, cost containment and quality improvement, and the promotion of women's health issues. My analyses consisted of three empirical chapters that used a variety of qualitative and quantitative methods. Chapter 2 (Essay 1) showed the distributed processes through which peripheral values for energy conservation and climate mitigation are incorporated within the core processes and structures of hospitals. Chapter 3 (Essay 2) revealed configurations of political, cultural and technical responses to conflicting pressures for cost containment and clinical quality improvement, and their consequences for hospitals' utilization of clinical best practices and pathways. Chapter 4 (Essay 3) examined the role of CEO gender in hospitals' responsiveness to women's health issues, in particular, adverse events during childbirth. In this chapter, I recapitulate the findings and contributions of each empirical study and discuss how they relate to each other. I then summarize several practical implications of this dissertation.

Chapter 2 relied on an inductive, emergent research design based on the principles of naturalistic inquiry (Greenwood & Suddaby, 2006; Lincoln & Guba, 1985) to investigate why and how hospitals infuse peripheral values into the structures and processes of their organization. It explored hospital's responses to the Green Energy Act during 2013-2015 by drawing on multiple sources of data, including interviews, observations, energy audits and archival documentation (Conservation and Demand Management plans). By extending previous work on processes of institutional leadership (Besharov & Khurana, 2015; Kraatz, Flores, & Chandler, 2020; Raffaelli & Glynn, 2015), I offered empirical support for a distributed process model of value-infusion. This model recognized the importance of leaders distributed among an organizations' base, whereas previous scholarship had emphasized the role of top managers at the apex of an

organization. I elaborated how energy managers and their allies engaged in the creation and maintenance of value systems in support of energy conservation and climate mitigation. Energy managers and their allies were also critical in disrupting historically imprinted patterns that undermined the integration of patient care with energy conservation and climate mitigation objectives. I used Lawrence and Suddaby's (2006) typology of institutional work to elaborate on these sub-processes of value infusion. Findings show that these processes relied on distributed change agency rather than the leadership efforts of individual top managers. Further, they demonstrate that, while organizations are to some extent "hostage" (Selznick, 1996) to their history, internal change agents can take an active role in infusing values into an organization's structures and processes and ultimately garner internal support in favour of an externally mandated change (Waeger & Weber, 2019).

Chapter 3 responded to numerous scholars who have recently called for the application of a configurational perspective to the study of organizational responses to institutions (Misangyi, et al., 2017; Raynard, 2016; Zhao, Fisher, Loundsbury, & Miller, 2017). Using an abductive approach based on fuzzy-set qualitative comparative analysis (Furnari, et al., Forthcoming), I investigated how the politics, culture and technical procedures of hospitals changed in response to conflicting pressures for cost containment and clinical quality improvement during 2017-2018. I found that four meta-configurations of political, cultural and technical responses explained a significant proportion of changes in clinical outcomes. I used interviews with clinicians to identify how each configuration may influence the utilization of best clinical practices and pathways hospitals, and developed a typology to describe associated mechanisms of change and their consequences for clinical services and outcomes. Findings demonstrate that an organization's alignment with cost containment can cause internal cultural dynamics that subvert the goals and values of clinical care. Further, the lack of internal political support for the improvement of clinical care can cause technical procedures (order sets, clinical pathways, clinical handbooks, discharge planning) to be superficially implemented. Finally, the adoption of technically inefficient procedures can work against the objective of improving clinical services and outcomes. Taken together, the findings suggest that the "organization as a whole" ought to be the focus of institutional analysis

(Greenwood, Hinings, & Whetten, 2014, p. 1208). With notable exceptions (Hallett, 2010; Kellogg, 2009; Kellogg, 2012), previous empirical work on organizations' responses to institutions has tended to focus on dyads of political, cultural or technical dynamics within organizations. Yet, an emphasis on their interaction is needed so that we may better understand the unwitting decoupling that occurs as organizations adapt to multiple conflicting expectations from their environment (Bromley & Powell, 2012).

Chapter 4 investigated the role of CEO gender identity on hospitals' baseline reporting and reduction in medical failures affecting women. Using latent growth modelling, it found that hospitals led by a female CEO were likely to have greater baseline reporting of adverse events affecting women during childbirth, and greater reduction in those adverse events over time. These findings offer empirical support for the predictions of social identity-based leadership theory (Hogg, 2001; Meyer, Becker, & Van Dick, 2006). The results also indicated that the perception of resource dependence among female CEOs significantly attenuated the effect of gender identity on baseline reporting levels and change in childbirth related adverse events. These latter findings offer empirical support for resource dependence theory (Pfeffer & Salancik, 1978), which predicts that organizations are likely to withhold unflattering information in order to maintain legitimacy and access to resources (Deephouse & Suchman, 2008; Pfeffer, 1981). Female CEO-led hospitals' commitment to women's health issues was weaker when these CEOs perceived their hospital to be relatively resource dependent. In such cases, female CEO-led hospitals tended to perpetuate clinicians' tendency to withhold information on medical failures, which likely hampered learning and change in clinical procedures (Edmondson, 2004). Taken together, findings suggest that top managers' incongruent social identity and perception of resource dependence may influence an organization's tendency toward 'hypocrisy' (Brunsson, 1989; Carlos & Lewis, 2018) through the silencing of failures. Future scholarship should continue to explore the influence of identity on organizational action to further our understanding of the micro-foundations of institutional theory (Powell & Colyvas, 2008) and its border crossing with organizational culture theory (Hatch & Zilber, 2012).

5.1 Observations across the empirical studies

In this section, I reflect on general observations that cut across all three empirical studies and offer an integrated discussion of the theoretical contributions of this dissertation.

5.1.1 Reflections on decoupling

When I began this dissertation, I was motivated to understand factors associated with decoupling. I re-read some of the germinal works (Meyer & Rowan, 1977; Weick, 1976) and then surveyed associated management literature on organizational responses to institutional processes. I examined the evolution of the construct and observed that most of the management scholarship had focused on unpacking antecedents and processes of ceremonial conformance (Fiss & Zajac, 2006; Tilcsik, 2010) that were central to Meyer and Rowan's (1977) work. Yet, I also noticed a significant number of studies that employed a broader and more diverse interpretation of decoupling. In this latter category, were studies based on Weick's (1976) concept of loose coupling (D'Aunno, Sutton, & Price, 1991; Denis, Lamothe, & Langley, 2001), and others that strike out on their own paths (Bromley & Powell, 2012; Pache & Santos, 2013). There was also a parallel stream of literature that addressed the internal conflicts that arise as a consequence of organizations' attempts to conform with the goals and values of multiple competing pressures (Besharov & Smith, 2014; Pache & Santos, 2010), but I did not pay much attention to it at the time.

When I began the empirical work presented in Chapter 3 of this dissertation (Essay 2), I expected that it would explore dynamics of ceremonial conformance. Yet, as I started to interview clinicians and healthcare administrators, it became increasingly clear that the phenomenon was more complex than anticipated. My interviewees genuinely appeared to be doing their best to uphold the various conflicting goals and values of their organization, and they also acknowledged that various organizational and institutional dynamics complicated the task. Additionally, I was surprised by the results of my configurational analysis of hospitals' quality improvement plans. For instance, I uncovered that, in several cases, hospitals' extensive implementation of clinical standards led to both improvement and worsening in clinical outcomes (causal asymmetry).

Therefore, I went back to the empirical and conceptual literature on decoupling to make sense of what I was encountering and to find a better theoretical framing for my research.

Over multiple iterations between data and the literature, I eventually came back to the construct of decoupling, but with a more nuanced conception inspired by Bromley and Powell (2012). As their work suggests, ceremonial conformance is not as widely spread as initially thought, partly because institutional requirements for transparency and accountability make such decoupling difficult. Moreover, they suggest that the heightened prevalence of rationalizing and theorizing processes, in organizational fields, have increased the likelihood of decoupling between means (practices) and ends (outcomes). This means-ends decoupling has been an overlooked aspect of Meyer and Rowan (1977). Yet, in a departure from (or perhaps more appropriately, an extension of) Bromley and Powell (2012), my empirical findings suggested that means-ends decoupling can occur also when organizations face conflicting prescriptions for action, which cause internal complexity and inconsistencies. As the institutional requirement for cost reduction conflicts with the competing requirement for clinical quality improvement, hospitals that aligned their culture or politics with cost reduction experienced unwitting decoupling of the clinical best-practices and pathways that are needed to support clinical quality and superior outcomes for patients.

The theoretical framing on means-ends decoupling had a mixed reception from management scholars. At an international paper development workshop, one of the most well-known business school institutional theorists was assigned as a discussant for an earlier version of Essay 2. While he was impressed with the paper, he emphasized that the paper did not address decoupling, in the traditional sense of ceremonial conformance, and that perhaps the theoretical framing should centre on organizational change. At a subsequent international conference on professional firms, my discussant was a more junior institutional scholar with a robust publication record in top management journals. This latter discussant opined that I should be more brazen (‘less shy’) in framing my paper and interpreting the findings through the lens of decoupling. He found the decoupling aspect to be one of the most interesting contributions of the paper, and he emphasized the unmet need for such papers in management journals. Interestingly, this

junior scholar had studied and co-authored with the more senior scholar who held the opposing opinion. A similar pattern of praise and reservation was repeated at a subsequent conference where two junior institutional scholars with dynamic publication records in top management journals had contrasting views on the use of decoupling in the theoretical frame.

As I reflect on the mixed reception, I am reminded of Scott's (2005; 2008) observation that some of the arguments and approaches developed in the early periods of institutional theory have exhibited an undesirable path-dependent effect. He believed that institutional scholarship on decoupling is one area where 'reconsideration and corrections' were called for. Yet, more than a decade after Scott's remarks, the need to recondition decoupling remains (also see Chapter 1 of this dissertation). This sentiment has been echoed by several other institutional theorists:

- Greenwood, Raynard, Kodeith and Micelotta (2011, pp. 350-351) opined that "[d]ecoupling, although an important and well-recognized organizational response, deserves further and closer attention in order to isolate its different forms and outcomes."
- Bromley and Powell (2012, p. 36) proposed that "[decoupling] research should examine the mechanisms through which policies, practices, and outcomes become aligned or maintain distinct trajectories, with an eye to analyzing the role of external pressures at all stages."
- Misangyi (2016, pp. 408-409) noted that "a more problematized approach to decoupling is needed if we are to truly understand it as an organizational response to institutional complexity […] what is the meaning of decoupling when it occurs in the midst of multiple possible logics—intentions—and when it co-occurs alongside coupling?"

Alongside other studies (Bromley & Powell, 2012; Pache & Santos, 2013), Chapter 3's theoretical contributions help advance such a research program. By investigating how hospitals' politics, culture and technical procedures change and interact in response to conflicting pressures, it demonstrates the unwitting consequences of hospitals' responses

to institutional complexity. It further provides theoretical language (typology) to help scholars talk about unwitting dynamics of decoupling. Institutional scholars may look back in several decades and recognize these contributions as part of a distinct turning point in our understanding of decoupling as an unwitting process.

The other two empirical chapters of this dissertation also contribute contemporary perspectives on decoupling. Chapter 4's investigation of reporting and change in medical failures has implications for our understanding of decoupling as hypocrisy (Brunsson, 1989). The International Encyclopedia of Organization Studies defines organizational hypocrisy as situations when organizations portray intentions through talk (or the absence thereof), whilst behaving inconsistently in their decisions or actions (Clegg & James, 2007). Whereas, in conventional usage, the word hypocrisy tends to carry negative connotations, Brunsson and his contemporaries use it in a rather neutral manner. Hypocrisy is necessary for organizations to maintain legitimacy and efficiency in the face of multiple conflicting institutional pressures (Dowling & Pfeffer, 1975), and it can arise as a result of a deliberate strategy or without any intentional coordination (Cha & Edmondson, 2006).

Chapter 4 shows how factors such as hospitals' resource dependence and the incongruent gender of their CEOs helped to perpetuate a pattern of under-reporting of medical failures occurring during childbirth. In comparison, hospitals with female CEOs tended to encourage greater reporting of childbirth-related adverse events, especially if they perceived their organization to be relatively low in resource dependence. These findings suggest that hypocrisy likely depended on a continuation of clinicians' unwillingness to share information on adverse events through the absence of 'talk' (Morrison & Milliken, 2000) rather than a deliberate strategy. In addition to resource dependence (Pfeffer, 1981), findings suggest that a hospital's CEO gender identity (Eagly, Karau, & Makhijani, 1995) can mitigate or perpetuate organizational hypocrisy, with female representation being more conducive to a hospital's substantive conformance with emerging societal expectations on women's health.

Another perspective on organizational hypocrisy arose during the process of research planning and interviews for Essay 2 (Chapter 3), as I interacted with hospital clinicians and managerial staff. In contrast to Ontario hospitals' claims ('talk') of being academically oriented and favourable toward research from scholars, the process of securing access to hospital sites was, at times, tediously political. My conversations with gatekeepers (e.g. CEOs, VPs, Chairs/ Chiefs/ Heads of Departments, 'Budget Approvers') often resembled more of a negotiation on what the appropriate scope and outcomes of my research should be. Instead of welcoming authentic academic inquiry, gatekeepers seemed more concerned with portraying their organization in a favourable light and advocating for initiatives that would help them acquire greater resources from granting agencies. Such behaviours implied inconsistencies between 'talk' and 'actions'(Brunsson, 1989).

In most cases, gatekeepers eventually signed-off on my intended research plans. Yet, while I was given formal research access, many gatekeepers only superficially endorsed my research with clinicians, which severely hampered my ability to recruit informants. In other words, I experienced significant inconsistencies between hospitals' 'decisions' to provide research access and their subsequent 'actions' (Brunsson, 1989).

Further, during my interviews, some informants appeared to withhold information to various degrees. For example, near the end of an interview with a more senior clinician, I asked about a specific practice that nurses use while caring for patients in resource-constrained environment. This practice had been elucidated in previous interviews with junior clinicians. The senior informant reacted with surprise: "They shared that with you? We don't talk about that." The senior informant acknowledged that the practice was used but avoided further elaboration.

I learned that the best informants were the more junior clinicians who were likely unaware of the political nature of the information they were sharing. They were often eager to share the impact that cost containment has had on the clinical services and health outcomes experienced by patients in their care. In comparison, the more senior clinicians

were likely more involved in upholding the various conflicting intentions of their organization, which limited their propensity to freely share information.

Hypocrisy is expected if hospitals are to satisfy their multiple intentions and maintain their legitimacy and efficiency in the face of conflicting pressures. As Chapter 4 and my experience with field studies demonstrated, these behaviours may not be linked to explicit directives; they are often the manifestation of actors' motivation to uphold the various—at times, conflicting—organizational goals to which they are accountable (Besharov & Smith, 2014; Pache & Santos, 2010). As I interacted with hospital gatekeepers and informants, I learned that, in order to reach my own research goals in such an environment, I too needed to separate my stated intentions from my actions. I communicated my research intentions in general terms and gently guided gatekeepers and informants toward my intended aims (Creswell & Poth, 2016).

Finally, Chapter 2's investigation of distributed value-infusion processes has implications for our understanding of the decoupling of formal structure (Meyer & Rowan, 1977). In response to the external mandate for energy conservation and climate mitigation, multiple hospitals developed dedicated structures and processes through the establishment of dedicated 'green committees' (Strashok, Dale, Herbert, & Foon, 2010). Yet, in some hospitals, green committees remained largely symbolic and decoupled from organizational decisions and actions. Whilst green committees were established, pre-existing decision-making processes prevailed; energy conservation projects were evaluated on the basis of short-term financial goals and needed to be pitched to top management and the board of directors, which prioritized clinical investments. In these hospitals, the formalization of green committees fulfilled institutional norms, while the committees' isolation from the rest of the organization allowed decisions and actions to remain unaffected (Brunsson, 1989).

In other hospitals, green committees had an active role in coordinating decisions and actions pertaining to energy conservation because distributed actors used the formal structure provided by green committees to advocate for energy conservation and obtain support and greater autonomy from top management and the board. Thus, Chapter 2

demonstrates how initially decoupled, formal structures eventually became more tightly woven into the fabric of some organizations. Continued decoupling depended not solely upon the intentions of senior leaders, but also upon energy managers' capabilities (or lack thereof) to shape the problems, solutions and opportunities (Cohen, March, & Olsen, 1972) for energy conservation, and eventually disrupt historically imprinted patterns of their organization (Stinchcombe, 1965). Stated differently, 'recoupling' depended not solely on the intentions of senior leaders (Hallett, 2010) nor those of actors distributed in the organizational base (Soderstrom & Weber, 2020), but on an interplay between leaders at various levels (Denis, Lamothe, & Langley, 2001). In organizations that are strongly imprinted by history, decoupling of formal structure may persist because of the lack of distributed institutional leadership (Selznick, 1957).

Taken together, this dissertation provides a contemporary perspective on means-ends decoupling (Bromley & Powell, 2012), decoupling as hypocrisy (Brunsson, 1989) and decoupling of formal structure (Meyer & Rowan, 1977), further reconditioning decoupling as a multi-form *consequence* of organizational responses to institutions.

5.1.2 Reflections on (de)institutionalization

All three empirical chapters also have implications for our understanding of (de)institutionalization. In particular, this dissertation has shown the important role that leadership plays in processes of institutionalization. Chapter 2 demonstrated that, while energy managers' capacity for action was enhanced by the broader institutional environment (Sewell, 1992), institutionalization depended on their agentic behaviour (Battilana & D'Aunno, 2009). Through various sub-processes of institutional work (Lawrence & Suddaby, 2006), they galvanized support for energy conservation from senior leaders and frontline clinical staff. Through concerted efforts, energy managers exerted significant institutional leadership (Selznick, 1957) by helping senior leaders and their organization as a whole adjudicate between multiple conflicting institutional requirements for energy conservation and patient care. Through their leadership, energy conservation became more fully integrated into the patient care routines of hospitals.

Another perspective on the importance of leadership, at multiple levels of an organization, arose over the course of research planning for Essay 2 (Chapter 3). I have already described some of the challenges I experienced in obtaining formal research access to hospital sites and gathering interview data from hospital informants. Yet, there were also instances when my research efforts benefitted considerably from the actions of hospital leaders who took it upon themselves to truly champion my research with their colleagues. With the exception of one hospital, I always began my research access discussions with a senior gatekeeper at the level of VP or CEO, who would normally endorse my research and connect me with 'Budgetary Approvers' and lower-level gatekeepers (Directors, Senior Physicians). The endorsement of the VP or CEO was never enough in itself to obtain access, I needed to bring in the lower-level gatekeepers who were expected to be more actively involved with my research. In several hospitals, at least one Director or Senior Physician was particularly excited about my research, presumably because it aligned with their goals or values. Consequently, they facilitated many aspects of my research access and data gathering. In other cases where lower-level gatekeepers appeared less enthusiastic, my research was significantly hampered. I was left with a sense that organizational members truly have significant agency in mediating or adjudicating between the various intentions of their hospital.

Similarly, Chapter 4 demonstrated that hospitals' commitment to women's health issues varied significantly according to the gender of their CEO, which suggests that the social identity of leaders is an important antecedent to organizational responses to institutional norms (Hogg, 2001; Meyer, Becker, & Van Dick, 2006). Hospitals led by female CEOs were more likely to encourage their clinicians to share information on medical failures occurring during childbirth and reduce the occurrence of these failures over time. The social identity of hospital leaders was thus an important antecedent to the institutionalization of normative guidelines and routines in response to emerging societal concern for women's health. Thus, when normative requirements are associated with a specific identity, institutionalization may be driven by leaders with intergroup identity and who are therefore more likely to advocate for the prototypical goals and values of their ingroup.

Finally, Chapter 3 showed how a lack of political support for clinical quality improvement could cause the deinstitutionalization of best clinical practices and pathways. When senior leaders disagreed about the importance of clinical quality improvement, clinical standards were superficially implemented. Because of the lack of political support, frontline clinicians lacked the time and resources to fully rehabilitate patients' cognition, speech, ambulation and other diagnostic baselines prior to patient discharge. Indeed, when senior leaders do not provide an appropriate climate for implementation (Klein & Sorra, 1996), the ability of clinicians to act in the best interest of patients is limited.

Additionally, Chapter 3 showed that the lack of cultural alignment with clinical quality improvement could also caused the deinstitutionalization of best clinical practices and pathways. When clinicians valued length-of-stay reduction over clinical quality improvement, the implementation of clinical best-practices and pathways was subverted. The lack of cultural support for clinical quality meant that frontline clinicians would sometimes discharge patients before their health condition was fully stabilized or without fully implementing discharge procedures. Clinicians' focus on reducing length-of-stay helped to provide access to a hospital bed for patients in need of inpatient care, yet could cause patients' conditions to deteriorate following discharge. Thus, pressures for cost containment caused clinicians to re-evaluate what constituted appropriate and meaningful behaviour, leading to the delegitimization of pre-established organizational practices (Oliver, 1992).

Taken together, this dissertation prompts Scott's (2014, p. 208) observation that "[d]emands or requirements [from institutional environments] trigger not automatic conformity, but multiple questions" that organizations consider in determining their response to institutional processes. This dissertation suggests that, as hospitals attend to and interpret emerging institutional requirements, distributed processes of institutional leadership (Selznick, 1957) and the social identity of leaders (Hogg, 2001) are likely to have significant influence as *antecedents* to organizational responses to institutions and subsequent processes of institutionalization. In pluralistic contexts such as hospitals, where power and authority are diffused across various levels and silos (e.g. clinical,

administrative), leadership is indeed a critical factor in processes of institutionalization (Denis, Lamothe, & Langley, 2001; Denis, Langley, & Sergi, 2012). Moreover, this dissertation also elaborated on deinstitutionalization processes (Oliver, 1992) that arise as a *consequence* of how hospitals' political and cultural systems adapt to changing institutional requirements.

5.2 Practical implications

Here, I highlight some of the most salient managerial and policy implications of the collective findings of my dissertation research. As discussed in Chapter 1, hospitals are constantly reforming as they seek to accommodate a multiplicity of changing technical and institutional demands (Brunsson & Olsen, 1993; Scott, Ruef, Mendel, & Caronna, 2000). Overall, the findings of this dissertation inform how hospitals and the actors within them may best manage these processes of change. The findings also inform how policy-makers may more optimally design mandates so as to reduce the potential for internal inconsistencies and inefficiency within hospitals.

I illustrated how hospitals can manage tensions between their technical and institutional requirements, or, more precisely, between value (cost efficiency) and values (e.g. climate mitigation/ energy conservation, professional standards of clinical care, women's health). When institutional requirements arise in support of peripheral values like climate mitigation and energy conservation (Chapter 2), hospitals may experience moderate levels of conflict. In accordance with prior work (Besharov & Smith, 2014), findings suggest that, in such cases, hospitals' pre-existing imperative of providing cost-efficient patient care is likely to prevail in areas of conflict. Yet, there may be opportunities to further integrate peripheral values in areas where these values are complimentary to patient care.

Hospitals can facilitate the integration of peripheral values by creating dedicated structures that allow distributed actors to participate in the adjudication process in a decentralized manner, with broader support from senior leadership. Because hospitals are distinguished from other organizations by their pluralism and complexity (Mintzberg, 1997), the problems, opportunities and solutions involved in integrating peripheral values

may not be obvious to senior leaders nor any specific group within the organization. The establishment of appropriate structures, such as dedicated offices and committees that assemble participants distributed across functions and levels of the organization, empowers the whole organization to navigate amidst competing and complementary technical and institutional demands (Besharov & Khurana, 2015). Hospitals that rely on strategic managerial actions to adjudicate institutional demands associated with peripheral values may miss opportunities for integration. In comparison, hospitals with a more decentralized approach allow for integration to emerge, more naturally and in less predictable ways, from the interaction of constituent groups (Kraatz & Block, 2008). These dedicated structures may be loosely coupled and symbolic at the start, but gain broader organizational support over time as participants gain more authority and autonomy from senior leaders and become more actively engaged in the processes of creating, maintaining and disrupting their organizations' value systems.

In comparison, when institutional requirements arise and reinforce competing values that are core to hospitals' functioning, hospitals may experience more extensive levels of conflict. In accordance with prior work (Besharov & Smith, 2014), findings suggest that, in cases where institutional requirements emphasize professional standards of care for various categories of patients—e.g. patients with chronic diseases (Chapter 3) and women patients during childbirth (Chapter 4)—organizational conflicts may be more persistent. The emphasis on professional care standards leads actors to confront and grapple with more intractable and extensive conflicts with hospitals' core imperative of cost efficiency. Therefore, in the absence of strategic actions from senior leadership, organizational members are likely to hold different expectations about appropriate organizational goals and practices. As a result, clear strategic commitments are needed to allow middle-managers and front-line clinicians to prioritize between various outcomes and practices in areas of conflict.

Certainly, there are ways in which quality patient care and cost containment are compatible as some synergistic practices exist that can help further both. In hospitals, the ultimate goal is often to find the right balance between quality and cost-efficient services. Yet, the findings suggest that at the more extreme end of the continuum, comprehensive

implementation of professional standards of clinical care requires significant organizational commitments in the form of resources (e.g. nursing and allied health professionals, hospital length-of-stay, more intensive procedures, treatments or therapies) which do conflict with cost efficiency. In such cases, it is unrealistic to rely on distributed leadership processes to adjudicate between competing technical and institutional demands. Findings suggest that strategic decisions by senior leaders are needed to prioritize clinical quality improvement (or cost reduction); these commitments significantly support (or constrain) the ability of front-line clinicians to fully implement best clinical practices and pathways. In cases where cost reduction is prioritized, clinical standards of care may be unintentionally affected.

I have thus highlighted the importance of leadership as a mechanism of organizational adaptation to institutions. Beyond its importance in providing resources and incentives to middle-managers and frontline actors (Klein & Sorra, 1996), the commitment of senior managers provides a signal about what organizational goals and values are truly deemed important (Selznick, 1957). Research has shown that strong value commitments from senior managers need to be supported through appropriate organizational structures or policies (O'Reilly & Pfeffer, 2000; Schein, 1985). When expressed values lack structural support, middle-managers and frontline workers are likely to become disenchanted (Cha & Edmondson, 2006). Chapter 2 showed that even loosely-coupled structures can allow the organizational base to engage in processes of institutional leadership that, over time, can help substantiate senior leaders' ceremonial commitments to peripheral values. However, this distributed institutional leadership transpires over extended periods of time, and may only work for peripheral values that are complementary to rather than strictly conflicting with core organizational imperatives. When values are conflicting or institutional cycles are short-lived (Chapters 3 and 4), distributed actors' ability to engage in the organizational processes of adaptation to and adjudication of emerging values is limited, which reinforces the importance of strategic managerial actions from senior leaders.

Finally, my collective findings have implications for policymaking. When mandates reinforce hospitals' competing goals and values that are core to hospital's

functioning, efforts can be made to design policy mechanisms in a manner that: (1) reduces the extent of inconsistencies and internal conflicts between organizational subgroups, and; (2) limits inefficiencies and other unintended effects such as to maintain the effectiveness of the intervention. For instance, in the context of the dual-pronged reform (Chapter 3), a countervailing funding mechanism could have been created to mitigate hospitals' propensity to cut costs at the expense of patient health outcomes (Palmer, et al., 2018). An additional funding mechanism could reward hospitals for reducing their readmissions below set thresholds, which would provide incentives for hospitals to implement best clinical practices and pathways more comprehensively, while pursuing cost efficiencies. Several informants remarked that the policy intervention put in place by the Health Ministry should have been called 'Cost-based Procedures' instead of 'Quality-based Procedures' because it did not sufficiently incentivize clinical quality. Rather than relying on hospitals to adjudicate between cost efficiency and quality—or, said differently, relying on them to arbitrarily value quality—policymakers can incorporate an implied valuation of clinical quality in their mandates.

However, when mandates emphasize peripheral values that are complementary or moderately conflicting with the core functioning of hospitals, mechanisms should seek to devolve adjudication processes to hospitals and encourage voluntary compliance. Institutional adaptation will require hospitals to overcome historically imprinted patterns reflected by, for example, a culture of silence on medical failures or one that undermines the importance of energy conservation and climate mitigation. To facilitate the task, policies should seek to empower and mobilize actors who will champion the cause of the new mandate within their organization. Whether the mandate relies on organizational members of a specific function (Chapter 2) or those with a particular identity (Chapter 4), policies should require hospitals to establish structures such as dedicated offices and committees or other requirements that otherwise promote greater inclusion of these champions in the organization's decision-making processes.

5.3 Conclusion

The hospital sector remains one of the most studied contexts for scholars seeking to understand how organizations respond to institutions. Hospitals are economically and

socially important, professionally oriented and, in recent decades, have undergone significant managerial rationalization. This dissertation's three empirical studies have helped inform research questions with important practical and scholarly significance for hospitals, particularly in relation to processes of decoupling and (de)institutionalization. I hope that the evidence presented in this dissertation will help enrich theoretical scholarship and contemporary perspectives on the antecedents and consequences of hospitals' responses to institutions.

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Related Work Experience

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Publications:

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Huppé, G. A. and Bala-Miller, P. (2011), Shareholder Passivity: A Viable Explanation for Failures of Corporate Governance at NewsCorp, Journal of Sustainable Finance and Investment, 1(3), 180-194.

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Working Papers:

Huppé, G. A., Maiorano, J. and Watkiss, L. Caring for Patients and Mother Nature: Integration of Core and Peripheral Concerns in Pluralistic Organizations. Preparing for submission to the Academy of Management Journal. (Full draft)

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Works-in-Progress:

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Huppé, G. A. (2020), Political, Cultural and Technical Responses to Conflicting Institutional Pressures. Presentation at the Oxford Saïd Annual Conference on Professional Service Firms, University of Oxford, Oxford, United Kingdom, July 6.

Huppé, G. A. (2020), Grand Challenge of Chronic Disease Management in Acute Care Settings: Hospitals' divergent responses and their consequences for patient health, Presentation at the 36th EGOS Colloquium 2020, Universität Hamburg, Hamburg, Germany, July 3.

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Huppé, G. A. (2020), Reducing Costs and/or Improving Clinical Services and Outcomes: Consequences of hospitals' heterogenous responses to common institutional pressures, Presentation at the Organization Theory in Health Care 2020 Conference, Ohio State University, USA, May 21.

Smaller, C., Sexsmith, K., Potts, J. and Huppé, G. A. (2016), Promoting Gender Equality in Transnational Agricultural Investments: Lessons from voluntary sustainability standards. Presentation at the 2016 World Bank Conference on Land and Poverty. Washington, United States. 14 March.

Huppé, G. A. (2014), Impacts of Commodity Production on Biodiversity – State of Play of Impact Indicators and Standards. Presentation at the Business Forum of the 12th Meeting of the Conference of the Parties (COP 12) of the Convention on Biological Diversity. Pyeongchang, Korea. 12 October.

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