The Organizational Context of Care Transition Interventions: Case Studies from Ontario

by

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A thesis submitted in conformity with the requirements for the degree of Doctor of Philosophy
Institute of Health Policy, Management & Evaluation, Faculty of Medicine
University of Toronto

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2015

Abstract

Patient safety and quality are compromised during transitions of care across settings. Interventions targeted at improving transitions have been developed and implemented widely. However these interventions have failed to consistently demonstrate measurable improvements. The literature suggests that context plays a role in mitigating the effectiveness of the interventions, however there are few studies that examine this in depth and disagreement around the best methods to do so.

The promise – and disappointment – of care transition interventions has been seen in Ontario with the limited success of the interventions implemented. This thesis explores interaction of context and the intervention through three Ontario case studies.

This thesis was informed by realist evaluation, which is concerned with understanding what contextual attributes inhibit or foster the success of interventions across settings. Case studies were developed using data gathered from 40 semi-structured key informant interviews, as well as observation and document review.
Realist evaluation informed the research approach, and a framework was developed to guide data interpretation and analysis. The framework addresses a gap in the literature around which attributes of context are most important. The framework divides context into external factors (policy), organizational structural characteristics, teamwork and culture, and management tools. Analysis within, and across cases was conducted to discern similarities around the interaction of context and care transition interventions. Key findings are:

Pilot project funding was a lever for introducing the interventions. However, pilot interventions did not address policy barriers, and developed parallel processes for transitions, with sustainability implications.

Physician leadership was important, and facilitated by remuneration incentives. A significant physician role, however, crowded out other professionals traditionally involved in transitions of care.

Interventions were facilitated by prior interorganizational relationships, either formal or informal. Boundary spanners, or previous collaborations facilitated relationships in an environment where policy barriers (e.g. privacy) inhibited collaboration around transitions.

Interventions are change processes that require change management efforts and support for staff buy-in.

The results of this study contribute to a better understanding of how context can facilitate or obstruct change processes, and desired outcomes associated with care transition interventions.
Acknowledgments

At the conclusion of my studies, I am grateful for the opportunity to acknowledge mentors, colleagues, research participants, friends and family.

First, I would like to thank my supervisor Dr. G. Ross Baker. Nearly a decade ago, through the lucky circumstance of being seconded to work on the High Performing Healthcare Systems: Delivering Quality by Design project, Ross introduced me to the world of patient safety, quality improvement and health services research and the rich opportunities for scholarship therein. His leadership in these areas has forged the way for my own contributions. Beyond being a recognized scholar, Ross is a committed and generous mentor who empowered and enabled me to undertake a study of this nature. I am grateful for having Ross as supervisor, and have valued his critical challenges and visionary insights throughout my studies. Ross was always supportive of my personal and professional endeavors, and this was tremendously appreciated.

I was fortunate to have Dr. Louise Lemieux-Charles and Dr. Walter Wodchis work with Ross to form a nurturing and challenging committee. Louise provided warm encouragement alongside probing and critical questions, which strengthened this work tremendously. Walter has a deep knowledge of transitions of care and the broader health system context surrounding this issue, and these insights were much appreciated. I would also like to thank Dr. Thomas Rundall, my external examiner as well as Dr. Mark Dobrow and Dr. Rhonda Cockerill, my internal examiners, for their thoughtful reflection on the contributions and implications of this study and for underscoring opportunities for knowledge translation and future research.

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The Institute of Health Policy, Management & Evaluation has been a collegial and intellectually diverse home in which to undertake doctoral studies. I’d like to thank my cherished friends and colleagues Dr. Melanie Kohn, and (the soon to be) Drs. Carol Fancott and Renata Axler.
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This research would not have been possible without the goodwill of the clinicians, management and leadership at the various organizations where my case studies took place. These individuals facilitated entry of a student researcher, supported me through Research Ethics Board applications, and trusted me to enter spaces of patient care and clinical work.

Finally, I would like to acknowledge to my family, friends and community. Your interest and encouragement has meant the world to me.

I would not have known how high I could reach, without my parents Dr. Abraham and Susan Born showing me the stars. My parents have been an inspiration – from my Father taking me as a young girl to visit Branson Hospital on his weekend rounds and engaging me in dinner table conversations about his triumphs and challenges as a physician. To my Mother who has shown formidable grace in balancing the many demands of being (among other things) a spouse, mother, daughter, professional and valued community member. Her steady presence has been vital to my own successes. My parents have supported my family and I throughout this endeavour in a multitude of ways –words of encouragement, babysitting, and offering thoughtful, constructive feedback – I simply could not have completed this without them.

To my children, Jacob and Hannah, whose contribution to my PhD will become part of our family lore. Both of your arrivals into this world brought me focus and determination - the house would shake with Jacob and Jeremy’s laughter upstairs, while I wrote this thesis during the summer months of 2013, and Hannah’s sweet newborn sleeping presence next to my desk compelled me through final revisions and preparations for the oral defence.

Lastly, to my husband Jeremy Glick. Jeremy believed in me, challenged me, offered critical insights and review, and listened, always listened. Our love has roots at the University of Toronto. We met when Jeremy was a student at the Faculty of Law. We spent part of our
wedding day at the blooming lawns in front of Convocation Hall, and now the day has come when we can take our children to watch their Mama walk across the Convocation Hall stage and receive the long awaited PhD!
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Chapter 1
Introduction

The phrase “discharging patients quicker and sicker” has entered the lexicon of health care. This captures the current environment of greater patient complexity and acuity within hospitals, increased pressure to rapidly discharge patients from acute care hospitals and an ongoing emphasis on offering more services to these patients on an outpatient basis or in community settings. Under these practices, patients are at risk of safety problems and poor quality of care as they transition across settings of care. Fragmented care delivered by multiple providers in multiple settings, with little coordination and inadequate communication, results in poor outcomes for patients, including medical errors, frequent hospital readmissions and emergency department visits.

Interventions have been developed to support patients who are more vulnerable to poor transitions of care, but while the goal of these interventions—to better manage transitions and improve quality of care—is clear, intervention outcomes and evidence of their efficacy have been mixed. This may in part be because current research around transition interventions tends to focus on the quantitative evaluation of whether these programs work, instead of asking why and how they work. Furthermore, challenges associated with measuring outcomes of care transition interventions and debates around how to best implement and assess these quality improvement interventions mirror larger debates in quality improvement science. While this is a relatively young field, enthusiasm for patient safety and quality improvement interventions within it have been tempered by
challenges measuring and evaluating outcomes. Often, negative or non-significant program outcomes are attributed to the complexity of the intervention and the environment in which it is being enacted.

Non-significant results, attributed to complexity of both context and the intervention has been the case with care transition interventions. Care transition interventions are so called “complex interventions”, with multiple components, stakeholders, individuals and provider groups affecting a diverse population of patients; they also apply to care within (and across) many complex organizational environments and settings of care. While care transition interventions have an articulated theory of change, which is enacted through the application of specific mechanisms aimed at improving the transition process, the interaction between the intervention mechanisms and organizational context is not well understood. Thought leaders in quality improvement science acknowledge the importance of understanding the organizational context in which these complex interventions are implemented—as well as the interplay between the intervention and the organizational context in which it is taking place—but there is a paucity of research in this area. The current research literature also acknowledges that organizational context has a role in enabling and constraining intervention mechanisms, but it is not explored in any sufficient depth. Important details around context often are left unarticulated and undefined—even though the influence of context on an intervention is frequently cited as a reason why the intervention did not lead to expected (or sustained) outcomes.

This thesis addresses the interaction between organizational context and care transition interventions, examining three Ontario case studies. The objective is to develop a
better understanding of how context can facilitate or obstruct change processes associated with care transition interventions, and to understand and articulate which attributes of context are important for care transition interventions. By examining how three similar interventions are enacted in heterogeneous organizational environments that share a single policy environment, this thesis offers a unique contribution to the evaluation of care transition interventions by helping to refine the theory of change associated with the successful implementation of care transition interventions in context.

While much of the previous research has focused on questions of if or whether an intervention works, this study asks different questions, instead considering what works for whom, in what circumstances, and why. These questions are not only of interest to those concerned with care transition interventions, but they also have resonance for a broader movement within health care that is focused on improving quality and patient safety. The broader context, and debates within quality improvement science and health services research on how to mitigate problems of measurement and evaluation will be highlighted in this chapter, and debates about care transition interventions are framed as a subset of broader debates happening in this field, and in health services research. The following section will briefly detail this movement, and it will frame the approach and focus of this thesis within identified research gaps around the interaction of context and quality improvement interventions.
1.1 The Quality and Safety Movement, and the Role of Context

The quality and safety movement galvanized health care by identifying the extent to which preventable errors and lapses in safety were commonplace. The movement outlined solutions for these problems, namely system-wide quality improvement interventions and associated tools to improve processes, support better measurement of outcomes and facilitate ongoing evaluation of performance. While there has been tremendous enthusiasm for these interventions, there has also been a great deal of disappointment within the quality and safety movement about the lack of documented changes to patient outcomes and performance. Following this have been debates around what can be done to facilitate and better understand how these interventions can be meaningfully implemented. The role of context has been highlighted as being an important mitigating factor in quality improvement interventions, and a better understanding of the interaction between context and quality improvement interventions has been noted as an area for further study (Berwick 2008, p. 1182, Shekelle et al., 2011,p. 696, Dixon-Woods, Bosk, Aveling, Goeschel & Pronovost, 2011, p. 170).

Two key documents released in the past 15 years—To Err is Human: Building a Safer Healthcare System (1999) and Crossing the Quality Chasm: a New Health System for the 21st Century (2001)—outlined the extent of medical errors and adverse events in the United States, and presented strategies to improve the quality and safety of health care. To Err is Human (1999), for example, reported dramatic evidence that as many as 98,000 Americans die each year as a result of medical errors, with deaths from adverse events surpassing those of AIDS, breast cancer and car accidents combined. Leape and Berwick (2005) describe how To Err is Human "galvanized a dramatically expanded level of conversation
and concern about patient injuries ... [as] patient safety, a topic that had been little understood and even less discussed in care systems, became a frequent focus for journalists, health care leaders and concerned citizens” (p. 2384). The authors of both *To Err is Human* and *Crossing the Quality Chasm* argued that adverse events were most often not a result of errors where a singular individual is at fault, but rather errors of commission, where systems fail to deliver quality care. As Leape and Berwick (2005) note, “the concept that bad systems, not bad people, lead to the majority of errors and injuries ... has become a mantra in health care” (p.2385), and as a result, quality improvement interventions have been established to improve processes and systems of patient care.

Batalden and Davidoff (2007) define quality improvement as the “combined and unceasing efforts of everyone—healthcare professionals, patients and their families, researchers, payers, planners and educators—to make the changes that will lead to better patient outcomes (health), better system performance (care) and professional development (learning)” (p. 2). Batalden and Davidoff suggest that there are five knowledge systems involved in quality improvement (shown in Figure 1.1)
Batalden and Davidoff (2007) suggest that the interplay and combination of these five knowledge systems produces improvement, and they go on to outline this “simple formula” [emphasis added] as the way in which knowledge systems combine to produce improvement or change.

Generally speaking, a quality improvement intervention is “an effort to change/improve the clinical structure, process and/or outcomes of care by means of an organizational or structural change” (Danz, Rubeinstein, Hempel, Foy, Suttorp, Farmer & Shekelle, 2010, p. 281). The type of changes implemented, processes modified and outcomes measured are innumerable, heterogeneous and diverse, ranging from a practice change by an individual health care provider to the complete overhaul of systems and processes of care within provinces, states or countries. The 5 Million Lives Campaign is an
example of a national quality improvement initiative, comprised of a set of interventions led by the Institute for Healthcare Improvement (IHI) that sought to reduce instances of iatrogenic harm by five million over a two-year period. This was done by providing guidance and tools around interventions to prevent pressure ulcers, reduce Methicillin-resistant Staphylococcus aureas (MRSA) infection, prevent harm from high-alert medications, reduce surgical complications, deliver reliable and evidence-based care for congestive heart failure (CHF), and engage health care boards of directors to help their organizations improve care (McCannon, Hackbarth & Griffin, 2007, p. 477).

The literature, however, indicates a number of concerns related to the evaluation and practice of quality improvement interventions. Firstly, evaluating such interventions has proven challenging, and it has ignited a rich debate about appropriate research methods to evaluate and understand associated change processes and outcomes. The impact of quality improvement interventions varies across settings that appear to be similar, and positive effects of the intervention in one setting are difficult to replicate in others (Dixon-Woods et al., 2011, p. 168).

Secondly, as Mittman (2004) has noted, there is widespread acceptance and enthusiasm regarding quality improvement interventions despite the absence of strong supporting evidence (p. 899). Quality improvement interventions have been packaged into so-called bundles or toolkits by organizations like the IHI to be implemented across health care provider organizations, settings and contexts. Pronovost and Wachter (2007), enthusiastic advocates for the importance of quality improvement interventions, concede that “it is frequently difficult to determine if a change resulted in an improvement, and, if so, whether the intervention was the reason” (p. 152). The state of the science for
evaluating these interventions is nascent, and when interventions have been studied by randomized controlled trial (the traditional gold standard of clinical research), results have been mixed (Berwick, 2008; Shekelle et al., 2011). Mittman (2004) notes that for quality improvement interventions, most of the published research consists of subjective self-assessments of lessons learned or uncontrolled pre/post-test designs that do not rule out plausible alternative explanations for observed improvements. While the authors of these studies routinely acknowledge design limitations of studies and suggest caution around interpreting positive findings, Mittman (2004) suggests that these are “easily overlooked” (p. 898).

Although there is tremendous enthusiasm from many in health care to “close the quality chasm” and improve patient safety by improving care processes, there are many who advocate further study of the effectiveness and appropriateness of quality improvement interventions prior to widespread implementation (Berwick, 2008; Auerbach, Landefeld & Shojania, 2007; Shojania and Grimshaw, 2005; Mittman, 2004). There is much to be studied in the burgeoning science of quality improvement, and those who highlight the challenges of studying quality improvement interventions have pointed to the role that organizational context plays in influencing intervention outcomes. Theory and research suggest that successful quality improvement strategies require a broad range of actions and supportive contextual factors, many of which are beyond the group of individuals participating in a specific intervention (Mittman, 2004, p. 899).

The interaction of organizational context and quality improvement interventions has been cited across many studies as an explanation for heterogeneous outcomes of the same intervention across multiple settings (Shekelle, Pronovost & Wachter, 2010; Berwick,
2008; Kaplan et. al., 2010). Shekelle et al. (2010) describe context here as the characteristics of an organization and its surrounding environment, which influence the effectiveness of quality improvement interventions (p. 43). Shekelle et al. (2010) go on to propose that “high-priority contexts” for patient safety interventions can be grouped into four domains: external factors; organizational structural characteristics; patient safety culture, teamwork, leadership; and management tools. *Table 1.1* (below) defines each domain and provides examples of attributes within each domain that are relevant to the Canadian context.

*Table 1.1*
High-priority contexts for patient safety interventions (adapted from Shekelle et al., 2010, pp. 43–45)

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<th>High-priority contexts</th>
<th>Definition</th>
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The role of context in mitigating patient safety interventions has been highlighted in the broader literature on the progress of the patient safety and quality improvement movement. The following quote from Shekelle et al. (2011) illustrates the complexity of the interventions themselves, as well as a consideration of the interaction between organizational context and intervention mechanisms:

Researchers in patient safety face substantial challenges. Interventions are usually multifactorial and complex, target multiple persons (including patients, clinicians, care teams, and leaders), and use various incentives and levers (social, economic and work redesign). For example, a checklist cannot work if individuals choose not to use it or the required supplies are unavailable, or the interface of a computer system may compromise its potential safety benefits.

The setting matters, as well. Although an intravenous medication that is effective in a 600-bed teaching hospital is also likely to be effective in an 80-bed rural hospital, a safety intervention may produce vastly different results in these 2 settings. (p. 694)

Organizational context is described in the patient safety literature “as characteristics of the organization and its environment that influence the implementation and effectiveness of
the patient safety [or quality improvement] practice” (Shekelle et al., 2011, p. 694). Despite the literature operating within a shared definition of organizational context, however, there is no consensus around what elements of organizational context are most important—and in need of measurement and evaluation—in order to understand how these elements impact the intervention. For example, there is a paucity of evidence around the influence of organizational context, and it has been highlighted as an important area for further study. Proponents of quality improvement and patient safety interventions also have bemoaned how inconclusive randomized controlled trials of patient safety interventions are seized upon by skeptics who caution moving forward with implementation of interventions.¹

This thesis aims to address some of the identified gaps in research and understanding around the role of context and quality improvement interventions, using the example of care transition interventions. The next three sections will detail why transitions of care have been identified as an area for improvement, how poor transitions lead to gaps in quality and safety, and how interventions have been developed to improve transitions. After that, some of the challenges in measuring care transition interventions will be discussed.

1.2 Transitions of Care

Elderly adults with multiple comorbidities and complex therapeutic regimens access health care from multiple providers in multiple settings (Clarfield, Bergman & Kane, 2001, p.

¹ There are a number of examples of skepticism of quality improvement interventions. On the subject of Rapid Response Teams and the MERIT Study (2006), see Winters et al. (2006), Rapid Response Teams: Walk, Don't Run, JAMA 296(13), 1645–1647. On the implementation of the WHO Surgical Safety Checklist, see Urbach et al. (2014), Introduction of Surgical Safety Checklists in Ontario, Canada, NEJM 370, 1027–1038.
1714). Responsibility for the complex combination of services required to treat and maintain health for this population is shared by many agencies and jurisdictions, including primary care, specialists, acute care hospitals, community agencies, long-term care, and other provider organizations and entities. There are many different actors who are involved in the journey of patients across care settings, with patients, caregivers and individual health care providers from different professional groups all adding to the layers of complexity (Bodenheimer, 2008, p. 1067). Transitions of care, as defined by Coleman and Berenson (2004) “primarily concerns the relatively brief time interval that begins with preparing a patient to leave one setting and concludes when the patient is received in the next setting” (p. 533).

1.2.1 Implications of Poor Transitions of Care

Research has established that poor transitions across settings of care lead to decreased patient and caregiver satisfaction, medication errors, inappropriate use of resources (both in the hospital and community settings) and increased costs (Kripalani, LeFevre, Phillips, Williams, Basaviah & Baker, 2007, p. 831; Coleman, Parry, Chalmers & Min, 2006, p. 1822). Forster, Murff, Peterson, Gandhi and Bates (2003) found that 19% of patients experienced adverse events following discharge (p. 164); in another study, Forster et al. (2004) found that 27% of patients experienced at least one adverse drug event following discharge from hospital (p. 319). Similarly, Moore, Wisnivesky, Williams and McGinn (2003) found that 49% of patients experienced at least one medical error related to the discontinuity of care between an in-patient to out-patient setting (p. 345).

Dhalla, O’Brien, Ko and Laupacis (2012) suggest that the increased focus on care transitions arises from broader social changes which have led to an increased number of
individuals who not only have complex care needs, but who also lack both continuing medical care and strong social supports. The first change is an aging population with complex chronic diseases that is increasingly frail and living longer in the community. The second is changes within medical practices that have created separate siloes for community health care providers and hospitals, with growing numbers of hospitals staffed by hospitalist physicians, and fewer family physicians maintaining hospital privileges. The final change is the reduced presence of familial caregivers and informal social supports in communities (Dhalla et al., 2012, p. 63). All of these social changes, along with the trend towards progressively shorter inpatient stays has resulted in patients transitioning between care settings with higher levels of acuity, extensive needs and complicated medication regimens; it also has seen individuals with multiple comorbidities access health care from many providers, in many settings, with little integration (Tsilimingras and Bates, 2008, p. 86; Nickerson, MacKinnon, Roberts & Saulnier, 2005, p. 65; Clarfield, Bergman & Kane, 2001, p. 1714).

The broader epidemiological, health system and social changes described above highlight the complex factors which have made patients increasingly vulnerable to safety lapses and compromised quality of care during transitions. Since there is no single individual or organization responsible for the patient as they transition across settings, communication lapses are common and have implications for quality of care (Bell et al. 2009, p. 381). Very often, patients themselves are left to navigate and ensure appropriate follow-up care (Sofaer, 2009, p. 75S). The ability of a patient to effectively navigate the health care system is associated with several factors, however, including the patient’s characteristics, the provider’s characteristics, the nature of the relationship between the
patient and care providers (both individuals and organizations), and the broader policy environment.

_Crossing the Quality Chasm_ highlighted the complexity of health care delivery, depicting many uncoordinated providers, which ultimately led to poor transitions across settings and decreased patient safety. As a result, the report stimulated research around quantifying the impact of poor transitions and associated safety lapses through readmission rates to hospitals and emergency departments, both of which are associated with gaps in follow-up care after discharge (Jencks, Williams & Coleman, 2009, p. 1427). For instance, a retrospective cohort study of over 11 million American Medicare beneficiaries found that almost one fifth (19.6%) of patients who had been discharged from hospital were readmitted within 30 days, and 34% were readmitted within 90 days (Jencks et al., 2009, p. 1421).

### 1.3 Care Transition Interventions: A Solution to Gaps in Care?

Interventions to support patients’ transition from hospital to the community have been suggested as a way to reduce hospital readmissions and improve quality and patient safety following discharge. Given the high profile of the challenges associated with poor transitions of care, such as increased readmission rates and errors, interventions have been piloted by various health care organizations across Canada, the United States and Europe. Care transition interventions, developed to deal with the challenges of patients moving between siloed health care providers and organizations, are a set of actions designed to ensure the coordination and continuity of care as patients transfer between different locations or different levels of care within the same location (Coleman et al., 2004, p. 533). For this thesis, the language of care transition interventions is used as it encompasses
interventions which include components related to ‘discharge planning’ and ‘care coordination’ – both of which concentrate efforts on improving patient care during transitions (Coleman et al., 2004, Bodenheimer 2008).

Over the past decade, studies evaluating these interventions have found heterogeneous results. The influence of organizational context on the intervention has been described as one reason for insignificant study results or poor outcomes of care transition interventions (Mistaien, Francke & Poot, 2007; Hansen, Young, Hinami, Leung & Williams, 2011). In a review of 43 published studies of care transition interventions, Hansen et al. (2011) noted that they were unable to identify a discrete intervention or bundle of interventions to reliably reduce rehospitalization; they also indicate that studies were characterized by heterogeneity of intervention content and context (p. 526).

These studies raise interesting questions. What enables some interventions to succeed while others fail, and why do some interventions work in one organizational context, but not in another? The research literature acknowledges—but does not examine—the contextual features that may enable or impede the intervention processes in various organizational settings. Shekelle et al. (2010) note that the context in which an intervention is being implemented can be split into two main categories: (1) the intervention itself and how it was operationalized, and (2) the physical and organizational context in which the intervention is embedded (p. 47). The following section will briefly detail the research literature that evaluates the care transition interventions, providing an overview of the clinical and programmatic attributes of such interventions, and noting the absence of important detailed descriptions of the physical and organizational contexts in which these interventions are embedded.
1.3.1 What are Care Transition Interventions?

Care transition interventions tend to include many components, and they often employ different approaches that vary in structure, delivery and intensity. These different elements can be used either independently or in combination within care transition interventions. This includes intensive individual case management across care settings, a focus on patient empowerment and improved information flow between individual providers, patients and caregivers (Coleman et al., 2004, p. 1823; Naylor, Brooten, Campbell, Maislin, McCauley & Schwartz, 2004, p. 677; Bodenheimer, 2008, p. 1067). Indeed, patients tend to be the central focus of the intervention as they are “often the only common thread moving across sites of care” and, as such, constitute an appropriate intervention target (Coleman et al., 2006, p.1822).

Hansen et al. (2011) identified 12 intervention categories, developing a taxonomy that defined categories as either predischarge, postdischarge or bridging the transition (p. 522).

*Figure 1.2*
Taxonomy of interventions to reduce 30-day rehospitalization (taken from Hansen et al., 2011, p. 522)

<table>
<thead>
<tr>
<th>Taxonomy of interventions to reduce 30-day rehospitalization</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Predischarge intervention</strong></td>
</tr>
<tr>
<td>Patient education</td>
</tr>
<tr>
<td>Discharge planning</td>
</tr>
<tr>
<td>Medication reconciliation</td>
</tr>
<tr>
<td>Appointment scheduled before discharge</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
A growing number of health care provider organizations, health systems and governments have embraced these interventions as an approach to improving transitions of care.²

Increasingly, interventions piloted in one organizational context have been packaged into guides that provide the information and tools needed to implement the intervention in other settings. Three examples of these packages (the Care Transitions Intervention, Project BOOST and Project Red) are reviewed below.

1. The Care Transitions Intervention (CTI), developed by Dr. Eric Coleman, has been packaged into a copyrighted program that includes associated toolkits, videos and background materials to guide implementation, process changes and measurement.³ Materials describe the CTI as being “uniquely suited to wide scale implementation,” noting that it has been adopted by over 800 organizations in 42 states (“Encouraging Patients and Family Caregivers to Assert a More Active Role During Care Hand-Offs: The Care Transition Intervention, n.d., p. 2).⁴

2. Project BOOST is a quality improvement collaborative led by the Society of Hospital Medicine in the United States. Organizations participating in this collaborative have access to technical assistance and implementation

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³ An overview of the CTI can be found at http://caretransitions.org/overview.asp# (accessed May 29, 2014).

⁴ This document is entitled “CTI Evidence & Adoptions,” and it includes testimonials from participating organizations and links to research related to the CTI. For more information, please see http://caretransitions.org/documents/Evidence_and_Adoptions_2.pdf (accessed May 29, 2014).
guidelines. Website materials suggest, “BOOST provides a suite of evidence-based clinical interventions that can easily be adapted and integrated into each unique hospital environment.” (Project BOOST Mentored Implementation Program, n.d., para.2)\(^5\)

3. Project RED is another example of an intervention that was piloted as a randomized controlled trial and has since been packaged as a transferable toolkit. Toolkit materials are described as providing “complete implementation guidance ... adapted to address language barriers, cross-cultural issues and disparities in health care communication and trust.” (The Project RED Toolkit, n.d., para 2).\(^6\)

While these interventions differ in terms of resource intensity, attributes and components, it is assumed they can be transferred across heterogeneous organizational contexts. The intervention packages are focused on mechanisms, however, not on how the interaction between context and mechanisms may influence outcomes, and in the absence of clear descriptions of how organizational context can enable or inhibit such interventions, implementation is a challenge. This is suggested by an interesting contrast in the literature, where broader debates around quality improvement science highlight the importance of context, which tends to be only superficially described in studies of the interventions. The assumption that interventions are transferable between organizational contexts is one of the motivators for this study. This thesis explores the interaction between context and intervention mechanisms, and outcomes.

As part of the literature review for this study, peer-reviewed papers of care transition interventions were assessed for their descriptions of context. Shekelle et al. (2010) highlight that context is not only the intervention itself, but also the physical and

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organizational context in which it is embedded (p. 47). *Table 1.2* illustrates the extent to which the two categories of context described by Shekelle et al. (2010) are presented in five published randomized controlled trials.

*Table 1.2*

Gaps in the description of context for transition interventions in a selection of peer-reviewed articles evaluating such interventions

<table>
<thead>
<tr>
<th>Study</th>
<th>The intervention and how it was operationalized</th>
<th>Physical and organizational context in which the intervention is embedded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beland et al., 2006</td>
<td>• notes intervention is described “elsewhere”; reference to paper with full description</td>
<td>• setting is publicly managed and funded system of Quebec health care</td>
</tr>
<tr>
<td></td>
<td>• table with team composition (number of full-time equivalents)</td>
<td>• notes intervention takes place in Local Community Service Centres (CLSCs), which are “public community organizations responsible for home care in Quebec”</td>
</tr>
<tr>
<td></td>
<td>• indicates intervention teams were distinct, with individual budgets, personnel and governance; not described further</td>
<td>• no description of CLSC history, context or Quebec health care system</td>
</tr>
<tr>
<td>Coleman et al., 2006</td>
<td>• essential features are summarized in table with four “pillars” and intervention stage</td>
<td>• setting is described as “a large, not-for-profit capitated delivery system” in Colorado that includes one hospital, eight skilled nursing facilities and a home health agency with &lt;60,000 patients aged 65 and above</td>
</tr>
<tr>
<td></td>
<td>• description of “transition coach” role that manages intervention, but no detail on training, salary and where the role fits within the organization</td>
<td>• no description about policy context for the health care delivery system in the United States or Colorado</td>
</tr>
<tr>
<td>Jack et al., 2009</td>
<td>• intervention described as a manual used by nurse discharge advocate (DA) to coordinate discharge plan and for follow-up by clinical pharmacist</td>
<td>• setting is large, urban “safety-net” hospital, part of Medical Center</td>
</tr>
<tr>
<td></td>
<td>• no detail of salary arrangements for DA or clinical pharmacist, or their</td>
<td>• no description of what “safety-net” hospital means, how it is funded</td>
</tr>
<tr>
<td><strong>integration with care team</strong></td>
<td><strong>Lim, Lambert &amp; Gray 2009</strong></td>
<td><strong>Young, Rewa, Goodman, Jaglal, Lefkowitz &amp; Coyte, 2003</strong></td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-------------------------------</td>
<td>-------------------------------------------------</td>
</tr>
<tr>
<td>• description of Post Acute Care (PAC) intervention as &quot;short-term case management&quot;</td>
<td>• intervention takes place in four university-affiliated hospitals in Victoria, Australia</td>
<td>• intervention takes place with patients discharged from Toronto East General Hospital in Toronto, Ontario</td>
</tr>
<tr>
<td>• notes role of PAC coordinator, who has a separate budget to purchase therapeutic and supportive services after discharge</td>
<td>• no description of Australian health system</td>
<td>• no discussion of Ontario health care system</td>
</tr>
<tr>
<td>• no information provided on specifics of this budget, patient population or program</td>
<td>• description of Disease Management Program (DMP), including home visits, checklists and patient education</td>
<td></td>
</tr>
</tbody>
</table>
anonymity, but the lack of descriptions of the health-system context leaves many questions about the funding, support and policy levers for the intervention.

While the quality improvement literature acknowledges that randomized controlled trials are designed to minimize the confounding effects of context (such as the heterogeneity of settings, staff, resources and culture), it does suggest that randomized controlled trials may not be appropriate for studies of quality improvement interventions, including care transition interventions (Davidoff, Batalden, Stevens, Ogrinc & Mooney 2009, p. 402). Davidoff et al. (2009) note that “trying to control context out of improvement interventions is both inappropriate and counterproductive because improvement interventions are inherently and strongly context dependent” (p. 402). Randomized controlled trials of quality improvement interventions (like care transition interventions) are generally published in the biomedical literature, which restricts authors to a minimal description of context through tightly controlled word limits and formulaic outlines of how studies are reported and described. In response to this, Ogrinc et al. (2008) have developed guidelines to improve how quality improvement interventions are reported in the peer-reviewed literature, with greater attention being paid to the local problems and setting, as well as the intervention plans. Ogrinc et al. (2008) suggest that these guidelines were developed as “the evolution and development of improvement interventions has much in common with changes in social policy and programmes” (p. i15). Improving the description of the intervention and the context in which it is being implemented would help to ground the discussion of the results of studies evaluating care transition interventions.
1.3.2 Falling through the Cracks: Gaps in Research

What organizational contextual features interact with care transition interventions, and which organizational contextual features matter for these particular interventions? Appreciating how organizational context influences care transition interventions is essential to expanding their implementation and enhancing the likelihood of success of any provider or jurisdiction that aims to improve transitions of care by adapting or adopting them.

There have been several meta-analyses of studies evaluating transition interventions that aim to discern whether there are specific components of such interventions which are effective across heterogeneous organizational contexts and settings (Hansen et al., 2011, p. 522; Boling, 2009, p. 135). In general, the findings were mixed. Boutwell and Hwu (2009) conducted a review of published literature on interventions to reduce rehospitalization, and while they found that some interventions had positive outcomes, they suggest that understanding the relative effect of any single intervention component on outcomes is not yet possible (p.3). Shepperd et al. (2013) conducted a Cochrane review of 24 randomized controlled studies of discharge planning from hospital to home and found that in some studies, discharge planning interventions can reduce the length of hospital stay and influence patient satisfaction, although it generally had an uncertain impact on health outcomes (p. 13). Similarly, a systematic review by Chiu and Newcomer (2007) of nurse-assisted care transition interventions found improved outcomes, such as reduced rehospitalization rates, in about half the studies (p. 334).
Overall, the authors note that in spite of common elements shared between interventions, there is no one component of the interventions that is universally applicable. Further, Mistiaen et al. (2007) conducted a systematic meta-review of care transition intervention studies and concluded that while there are some interventions that may have a positive impact, there is limited evidence for which specific components have a positive impact on patient status, patient functioning or health care use after discharge, and finally on costs (p. 17). Hansen et al. (2011) drew similar conclusions following a systematic review of studies evaluating interventions to reduce hospital readmission, noting that no discrete intervention or bundle of interventions reliably reduces rehospitalization (p. 527). Nevertheless, the authors highlight that “avoiding rehospitalization has captivated policymakers as a goal that both improves quality and reduces health care costs” (p. 527).

While Hansen et al. (2011) were commenting on the American context, their point is also true for Ontario, where care transition interventions have captured the imagination and attention of policymakers. Care transition interventions are seen to promise a valuable trio of elusive health care aims: (1) driving down costs, (2) ensuring appropriate, patient-centred and integrated care and (3) improving quality and patient safety. The following section details the Ontario policy context and focus on care transition interventions by bringing together some of the threads from the previous sections of this chapter—in particular, how Ontario has seen tremendous enthusiasm for quality and patient safety interventions, yet has realized mainly disappointing or modest results. The role of context has not been explored in any depth as a potential factor in influencing intervention outcomes. This study also will look at the role of context at two levels: the policy level
(since all three interventions are taking place in Ontario) and the organizational level, where similarities and differences between organizations can be explored.

1.4 Ontario and Care Transition Interventions

Transition interventions are being implemented in Ontario as a result of policy directions and priorities set by the Ontario Ministry of Health and Long-Term Care (MOHLTC). Strategic aims of the MOHLTC related to transitions are reflected in key indicators of system performance, including emergency department (ED) visits and waiting times, alternate level of care (ALC) days, hospital readmissions, and applications/admissions to long-term care. There also are strategies in place aimed at reducing costs associated with the ageing population by shifting care out of hospitals and into less resource-intensive community settings.

Policymakers and governments are increasingly focused on reducing health care costs. Health care spending in Ontario has doubled over the past decade, accounting for about 42% of all Ontario government spending in 2012–2013 fiscal year, and it is predicted that health care will take up 44% of all provincial spending by 2017–18. (Health System Funding Reform, 2012, para. 4, n.d http://health.gov.on.ca/en/pro/programs/ecfa/funding/hs_funding.aspx). To address this, the Ontario government developed a commission on the reform of Ontario’s public services, which issued a report Public Service for Ontarians: a Path to Sustainability and Excellence, released in February 2012. The commission, led by economist Don Drummond, emphasized the challenge of reforming the health care system to increase quality, efficiency and value for dollars spent. Referencing a study that suggests that 10% of the population accounts for 95% of health care costs, the report called for “better coordination of care” for
complex and expensive cases as one way to find efficiencies in the spending on these patients, and it went on to highlight the characteristics and health-system utilization patterns of these patients:

Who are the people in this one percent [of high system utilization] category? They are people who are frequently in and out of our health care system, constantly being admitted to, discharged from, and then readmitted to hospitals ... if a person is seen by a health provider within two days of being released from hospital, studies have shown that their probability of being readmitted drops by at least one-third. What matters is not merely the intervention itself, but the timeliness in which it is carried out. (Public Services for Ontarians: a Path to Sustainability and Excellence, p. 180).

This passage is revealing around how policymakers in Ontario have linked improving case management and reducing readmissions for frequent health-system users and reducing health care spending.

As part of broader government strategies to reduce costs and improve quality, a number of care transition interventions have been piloted and implemented across health care provider organizations in Ontario. It is important to note, however, that some of these interventions have been borrowed from abroad to run as pilots running in parallel with policy efforts. Lewis (2007) argues that Canada has a “learning-disabled” health care system, unable to implement large-scale change, suggesting that the “perpetual question in Canada is what we can learn from other countries” (p. 20). According to Lewis, best practices or learnings brought from abroad are not connected to the complex health system structure in Canada—of entrenched stakeholders, policy constraints and strong institutions—so they tend to not be productive and lead to meaningful improvements (p. 20). As Lewis goes on to explain, “the United Kingdom exhausts its system with perpetual change; we exhaust ours with endless talk and death by a thousand demonstration
projects” (Lewis, 2007, p. 19). Fooks (2003) also highlights the role that pilot projects occupy in the politicized Canadian health care landscape:

Rather than move to full implementation, provincial governments often attempt policy reforms of new initiatives through pilot projects. This often gives an impression that a final decision on a policy direction hasn’t been made, permits time for opposition to build, and leaves open the possibility of policy reversal when Ministers or governments take office. (p. 134)

The cynicism regarding the political roadblocks towards embedding pilots is echoed by Monique Begin, a former Federal Minister of Health, in a 2009 Canadian Medical Association Journal editorial which opens with the statement: “when it comes to moving health care practices forward efficiently, Canada is a country of perpetual pilot projects” (Begin, Eggertson & MacDonald, 2009, p. 1185). Begin et al. (2009) describe a long history of pilot projects in health care that are not sustained once initial funding has expired, regardless of outcomes or merit. Begin et al. (2009) echo Fooks in their reasoning for why pilot projects are not sustained:

There is a reason that governments are leery about granting core funding to sustain programs that begin as pilots: their need for financial control. Governments fear that community-based projects are ripe for administrative abuses or fraud. They prefer to be able to jettison pilot projects if they attract too much criticism or when budget priorities shift. Although some of these funding concerns are legitimate, a sound pilot project with good outcomes should not disappear once completed. (p. 1185)

The presence of pilots in Canada in place of major system-wide changes has been noted as taking place in areas of intense policy focus and calls for reform. An example of this is primary care. A scan of quality improvement activities in this sector noted there were “many local pilot projects and research activities to support QI-PHC [Quality
Improvement-Primary Health Care] initiatives that are not strategically informing subsequent and broader scale initiatives” (Sibbald, MacPhearson & Kothari, 2013, p. 7). Sibbald et al. (2013) go on to state that the “non-integrated collection of pilots does not constitute a coherent, sustained and strategic program” (p. 8). Instead, the authors suggest that for large-scale, system-wide change to be implemented, a provincial strategy aligned with funding changes is required. The area of reducing readmissions and improving transitions of care also has become one where multiple pilots are present. Barriers associated with poor transitions of care within the broader health care system—inadequate processes and systems to communicate about patient care, poor accountability mechanisms for care coordination, and provider/organizational funding that entrenches silo-based health care provision—remain, despite pilots aimed at improving transitions within specific organizations. Although context has been highlighted as a limitation on intervention mechanisms, there is usually no distinction made between policy and organizational contexts.

This thesis provides an opportunity to examine the organizational context for these pilots and assess the interplay between organizational context and interventions. While the broader policy environment in Ontario includes shared health system funding, accountability and delivery mechanisms, differing policy objectives for each of the case study organizations shaped the organizational context, and in many ways facilitated the intervention itself. The three cases for this study (case selection is described in further detail in Chapter 3) were all care transition interventions that share similar components and aims; however, they were implemented across heterogeneous organizational contexts.
Case study A is an intervention at an academic health science centres and a community care provider organization, Case study B is an intervention at a Family Health Team and community hospital and Case Study C is an intervention at a community hospital. Case studies will detail how various policy objectives shaped organizational environments and provider behaviors, and how this in turn influenced the introduction, adaptation and implementation of care transition interventions. Comparing and contrasting between cases that contained varying policy objectives and relevant environmental components while implementing similar interventions allows for the comparison of how organizational and policy contextual features interact with the intervention.

1.5 Research Questions
The purpose of this thesis is to examine the relationship between context and care transition interventions. The literature evaluating care transition interventions has a gap around the organizational contextual levers and barriers of the interventions, an oversight where context appears to influence intervention outcomes and which intervention mechanisms are effective. Shekelle et al. (2010) suggest that to understand the physical and organizational context in which an intervention is taking place, knowledge from four types of “players” should be sought: (1) those directly responsible for ensuring that patient safety behaviors are carried out, (2) those responsible for initiating and carrying out the patient safety interventions, (3) the unit(s) within the organization where the patient safety behavior of interest is located, and (4) policymakers (p. 48). This list does not include patients as ‘players’ who can contribute to knowledge about context and care transition interventions. There is a growing interest in involving patients since as Vincent and Coulter (2002) argue, they are not passive victims of error and safety failures, but
rather “there is considerable scope for them to play an active part in ensuring their care is effective and appropriate in preventing mistakes and assuring their own safety.” (p. 76)

However, for this analysis the patient perspective was considered to be beyond the scope of this study. Instead we drew upon individuals from within each of the four groups highlighted by Shekelle et al. (2010) in order to understand the various layers of policy and organizational context. Various front line clinical professionals, administrators and managers involved in the interventions, as well as key informants from the provincial MOHLTC and senior health system decision-makers were interviewed.

The research questions asked informants about various phases in the intervention process at their organization. This is based on a framework developed by Kilbourne, Neumann, Pincus, Bauer and Stall (2007), which outlines the preconditions, pre-implementation, implementation, and maintenance and evolution phases of health care interventions that are being replicated across many organizations. For the purposes of this study, the preconditions are described via case studies, the pre-implementation phase is split into introduction and adaptation phases, and the implementation phase is drawn from the Kilbourne et al. (2007) framework (shown in Figure 1.3). Given that data collection occurred over a short period of time during the course of the intervention, issues identified as part of the maintenance and evolution phase were beyond the scope of this study.

*Figure 1.3*
Replicating effective programs framework for health care interventions (from Kilbourne et al., 2007, pg. 42)
Given that the thesis is a case study of three interventions, understanding which contextual features are identified by specific informants will give a sense of the diversity or heterogeneity of contextual levers between interventions. It also will provide insights during cross-case analysis.
The relationship between organizational context, and intervention, and the presence of shared contextual barriers or facilitators across organizations is a key focus of the thesis.

3. *How do key informants perceive the influence of interorganizational relationships on the adaptation and implementation processes of the intervention?*

The fourth question focuses on culture and is interested in context at the team, individual and unit level. This question is aimed at eliciting multiple perspectives which can be layered in order to create a rich, nuanced understanding of culture, and sub-cultures within an organization.

4. *How do key informants perceive the influence of cultural contextual features on the adaptation and implementation processes of the intervention?*

1.5.1 Assumptions

These research questions are based on a number of assumptions. The primary assumption of this research is that organizational context influences the introduction, adaptation and implementation of care transition interventions.

The three case studies are a heterogeneous sample of organizations implementing care transition interventions that share the same outcomes and some of the same attributes. The sample also includes varying organizational configurations and levels of complexity. Given the heterogeneous sample, it is important to ascertain both internal and external organizational factors that influence the intervention, and to tease apart similarities and differences between the case studies. Constructs drawn from the theoretical framework are the focus of case studies and cross-case analysis.
1.6 Structure of Thesis

This thesis draws on case study methodology to understand how context influences care transition interventions across three heterogeneous organizational contexts in a shared policy environment. Key informant interviews, observation and document review all provide information about the shared external policy environment within which these interventions were implemented. Analysis of this data, informed by the theoretical framework, will focus on specific attributes of the policy and organizational context in order to understand the interaction between context and care transition interventions being implemented in Ontario.

This thesis consists of six chapters. In many ways, its organization reflects the initial motivations, trajectory and progress of my doctoral studies. I was first motivated to pursue doctoral studies while working as a research analyst with the Ontario MOHLTC. As part of that work, I was involved in developing scorecards for the health care system that used available indicators to measure areas of strong and poor performance and highlight regional variation. A significant policy objective at the time was to improve the integration of Ontario’s health care system, but the available indicators relied upon were proxies of integration—including ALC days, ED visits and hospital readmissions—that were (and still are) suggestive of how a fragmented health care system leads to poor transitions between settings. This interested me, and my desire to explore integration and transitions led to literature reviews around transitions, and then to the interventions that intended to both improve those transitions and address the fragmentation that had become such a challenge. I was soon struck, however, by assumptions in these studies that interventions could be packaged and applied across different health-system contexts and settings—at no
point did they consider the role of organizational or policy context. Instead, the literature suggested that improving transitions could be as simple as implementing a change process; meanwhile, the complexity of both the change processes and environment in which these processes would be enacted were overlooked.

The translation of policy objectives to improve health care integration in Ontario included support for a number of pilot care transition interventions, and I was fortunate that not only did the timing of my studies align with the launch of a number of interventions, but that I also was able to gain access to three of such interventions. The first two chapters of this study set forth this problem, anchoring it within broader debates taking place in quality improvement science about how complex interventions can be evaluated. The choice of a realist evaluation for this thesis is explained based on the complexity of interventions and the context in which they’re enacted. The approaches taken to gathering data from the case study interventions follow, as do a description of the interventions themselves. The analysis of case studies provides an opportunity to re-examine the problem articulated, but within the specific context of Ontario. The final two chapters of the study provide a platform for analysis and suggest where my research can contribute to both the theoretical and empirical aspects of this problem by using a novel set of methods to examine the problem of interventions to improve transitions of care and indicate attributes of context that are important in enabling (and impeding) intervention mechanisms. Finally, at the conclusion of my doctoral studies, I intend to contribute to the ongoing policy conversations on the subject of integration and transitions. Once again, the timing is important, and as part of the impact of my research, I aim to disseminate key lessons learned for policymakers who not only remain keenly interested in improving
integration and transitions of care, but who are trying to draw out lessons learned from the pilot interventions that have been implemented in Ontario over the past few years.

Chapter 1 introduces the study and its focus on care transition interventions, framing it within a broader movement in quality improvement science. This chapter provides a critical overview of the research literature on care transition interventions. Given that the thesis contains case studies of three transition interventions implemented in Ontario, the problem of poor transitions in Ontario are discussed, as are the policy approaches intended to address this problem.

Chapter 2 is a review of the literature that not only guides the thesis’ theoretical framework and design, but that also supports its conceptual analysis. An integrated framework that draws from concepts in realist evaluation, health services research, quality improvement science and implementation science will be introduced, and the reasons for the development of the integrated framework will be outlined. What constitutes important attributes of the organizational context vis-à-vis transition interventions and justifications around what is included in the conceptual framework will be further explored through a survey of the relevant organizational behavior and management literature.

Chapter 3 presents the study's research design, detailing the research methods and process. Given that this study was informed by realist evaluation, it is important to articulate how this approach was enacted. The realist approach does not prescribe out a step-by-step process for research design; rather, it follows an approach that guides data gathering, understanding and interpretation. As such, clarity about the rigor of the case study approach is important, and the case study methodology will be described, with
details of sampling strategy and approach—as well as participant recruitment and scheduling—being provided. This chapter will also explain the types of data gathered for the thesis, and the approaches and tools used for data management, storage and analysis.

Chapter 4 provides rich, descriptive case studies. Each opens with a section that provides a vignette of a typical patient participating in the intervention before moving on to outline the organizational context, providing details on the program setting, organizational environment and external policy factors that have shaped that environment. The specific care transition intervention in each of the cases is also described, as is the process of intervention introduction, adaptation and implementation. Following that description, each case study contains a section of detailed analysis that focuses on organizational context and provides analysis of the attributes of organizational context in the integrated framework and their interaction with intervention mechanisms, with a particular focus on organizational structure, teamwork and culture and management tools. Finally, each case study concludes with an update on the current status of the intervention (as of May 2014).

Chapter 5 presents a cross-case analysis that details similarities and differences across cases. It also reviews each of the four identified attributes of organizational context of external factors, organizational structural characteristics, teamwork and culture and management tools, in relation to each case (see Table 1.1 for details of these attributes). The cross-case analysis explores similarities and differences between cases, focusing on the theories of change associated with the intervention mechanisms and the way in which context facilitated or impeded the change.
Chapter 6 concludes the thesis with a discussion of implications. The theoretical framework is then reviewed and revisited based upon the case studies and the analysis presented in Chapters 4 and 5. Next, propositions related to each of the attributes of context which describe the relationship between intervention and context are developed. Each proposition is informed by the realist evaluation approach, and they focus on the interaction between context, mechanisms and outcomes. Future research directions are suggested, limitations are reviewed and the chapter concludes with a discussion of the implications (both theoretical and empirical) of the study and its application to policy and practice.

1.7 Summary
This chapter provides an overview of why transitions of care have become a focus of interventions aimed at improvement health care quality and patient safety. Two broader contexts are explored. The first surrounds evolutions within the science of quality improvement and acknowledgements of the interaction between context and quality improvement interventions. Heterogeneous results of care transition interventions are highlighted, as is the absence of description around the intervention itself, its operationalization and the physical and organizational context in which the intervention is embedded.

The second context explored is that of Ontario and the link between its health system’s twin goals of reducing costs/improving value and improving transitions of care. This broader context explains why the Ontario MOHLTC has supported interventions aimed at improving transitions of care. The opportunity to study the role of both policy and
organizational context on care transitions in Ontario also is presented, and the problem of understanding how context influences care transition interventions is outlined. The next two chapters will detail the theory and methodology for examining this problem.
Chapter 2
Literature Review and Conceptual Framework

Chapter 1 of this thesis describes how there is mixed evidence about the effectiveness of care transition interventions (Hansen et al., 2011, p. 520) yet tremendous enthusiasm around their implementation, with interventions piloted in one setting packaged for implementation elsewhere. Dixon-Woods et al. (2011) point out that the descriptions of program components and activities presented in studies of quality improvement interventions are often quite poor and that this, in turn, inhibits reproducibility (p. 169). As Table 1.2 of Chapter 1 indicates, this is the case with published randomized controlled trials of care transition interventions, which neglect to provide crucial information on either the intervention itself, or the physical and organizational context in which it is embedded (Shekelle, 2010, p. 47).

Despite the absence of this important information, care transition interventions described in the literature are being packaged as transferrable between health care organizations (Whelan, 2010, p. 1). These interventions, however, are being implemented in the absence of a deeper understanding of how organizational context can influence intervention mechanisms. Dixon-Woods et al. (2011) characterize this phenomenon, where quality improvement interventions are being implemented across environments without a deeper understanding of contextual enablers and barriers, as “cargo cult quality improvement” (p. 169). Dixon-Woods et al. (2011) borrowed the analogy from a 1974 Caltech university commencement address given by Richard Feynman to describe practices that appear to be scientific, but which do not follow the scientific method:

In the South Seas there is a Cargo Cult of people. During the war they saw airplanes land with lots of good materials, and they want the same thing to happen now. So
they’ve arranged to make things like runways, to put fires along the sides of the runways, to make a wooden hut for a man to sit in, with two wooden pieces on his head like headphones and bars of bamboo sticking out like antennas—he’s the controller—and they wait for the airplanes to land. They’re doing everything right. The form is perfect. It looks exactly the way it looked before. But it doesn’t work. No airplanes land. So I call these things Cargo Cult Science, because they follow all the apparent precepts and forms of scientific investigation, but they’re missing something essential, because the planes don’t land. (Feynman 1999, p. 208 as quoted in Dixon Woods et al. 2011, p. 169).

Dixon-Woods et al. (2011) argue that quality improvement interventions implemented without a proper understanding of how they work risk “becoming distorted imitations that succeed only in reproducing the superficial outer appearance but not the mechanisms (or set of mechanisms) that produced the outcomes in the first instance” (p. 170).

As such, this study aims to provide insights about the context of care transition interventions, mindful of “cargo cult quality improvement,” where there is a danger that interventions are being packaged and implemented in the absence of more in-depth information on how intervention components and mechanisms interact with context. The following chapter reviews the literature that informs the approach and theoretical framework for this study. This study is informed by realist evaluation, which is focused on an in-depth exploration of an intervention in context. The fundamental principles, strengths and weaknesses of realist evaluation will be explored and an integrated framework that draws from concepts in realist evaluation, health services research, quality improvement science and implementation science will be presented, and the reasons for the development of the integrated framework will be outlined. What constitutes important attributes of the organizational context vis-à-vis transition interventions, and justifications around what is included in the conceptual framework will be further explored through a survey of the relevant organizational behavior and management literature.
2.1 Complex Interventions and the Science of Improvement

As described in the previous chapter, care transition interventions are a type of complex intervention. The UK Medical Research Council defines complex interventions as those comprising “a number of separate elements which seem essential to the proper functioning of the interventions although the ‘active ingredient’ of the intervention that is effective is difficult to specify” (Shepperd et al., 2009, p. 1). There are no sharp boundaries or distinctions between simple or complex interventions, although most health care interventions have some degree of complexity. Craig et al. (2008) outline the many interacting components and wide range of effects for highly complex interventions as including:

1. The number of components within the interventions and the interactions between them.
2. The number and difficulty of behaviors required by those delivering or receiving the intervention.
3. The number of groups and organizational levels targeted by the intervention.
4. The number and variability of outcomes.
5. The degree of flexibility or tailoring of the intervention that is permitted (p. 979).

Care transition interventions are examples of complex interventions because they have multiple independent and interdependent components that are implemented across multiple organizations, within multiple units of the same organization, and through multiple providers. In fact, in their attempts to aim to improve patients’ care journeys and minimize fragmentation of care, these interventions are at the more complex end of the spectrum (Shepperd et al., 2009, p. 1). Shepperd et al. (2009) note that in service delivery, interventions become more complex if (a) they are delivered across the interface of primary and acute care, (b) they are delivered in new settings, or (c) there are added
behaviors, with staff working to perform new behaviors or transfer current behaviors in a different context (p. 2).

Unlike more linear, deterministic clinical interventions that usually result in specific, measurable outcomes (e.g. a dosage of medication given to a patient who meets certain criteria will likely lead to predictable effect), complex interventions are highly dependent on the interplay of individuals. The actions of individuals will be influenced by the context in which the intervention takes place. A classic example of this is smoking cessation programs, which are complex public health interventions that have major variations in outcomes when implemented across different communities. In these programs, the actions of smokers will be dependent upon the interplay of their own circumstances (including health and socioeconomic status) and those of their communities; meanwhile, the actions of the individuals delivering the intervention will be guided by factors such as the clinical setting in which the program is delivered and the nature of the community in which it is based (if different from that of the individual taking the program) (Shepperd et al., 2009, p.4; Pawson and Tilley, 1997, p. 70). Since individuals are operating within complex social systems, the context influences and limits the range of their behavior, action and choices (Pawson, 2013, p. 53). This makes evaluating complex interventions extremely problematic, because any evaluation must be concerned with both the outcome of an intervention and the context in which it was implemented.

2.2 Realist Evaluation

Realist evaluation offers an approach to evaluating complex interventions that is focused on understanding how context influences intervention mechanisms, and outcomes. Instead of following traditional models of experimental design (where an intervention is applied to
a specific phenomenon in a controlled environment and leads to a clear outcome), realist evaluation aims to understand the interplay between complex interventions and the social systems in which they are being deployed (Berwick, 2008, p. 1183; Shepperd et al, 2009, p. 3). Rather than trying to address whether a complex intervention works, realist evaluation “seeks to unpack the mechanism of how complex programmes work (or why they fail) in particular contexts and settings” (Pawson, Greenhalgh, Harvey & Walshe, 2004, p. 1; emphasis original). It does this by asking “what is it about the program that works for whom, in what circumstances, in what respects, over which duration ... and why” (Pawson, 2013, p. 15).

Pawson, Greenhalgh, Harvey and Walshe (2005) suggest that first understanding the complexity of the intervention itself is important for realist evaluation.

The starting point for research synthesis in health care is the nature of the intervention that will be examined. Intervention is a useful catch-all term but it conflates initiatives that are methodologically quite separate. Thus, a clinical treatment is not the same as a health care programme, which is not to be confused with health service delivery, which is a different animal from health policy. And so on. When reviewing research, the key task to match review method to subject matter. (p. 22; emphasis original)

Table 2.1 uses direct quotes from Pawson to describe the principles of complex interventions, and corresponding expectations of realist evaluation.

Table 2.1

The Nature of Interventions & Expectations of Realist Evaluation (adapted from Pawson et al., 2005, pp. 22–23)
<table>
<thead>
<tr>
<th></th>
<th>Complex interventions are based on theories, with hypotheses grounded in assumptions.</th>
<th>[W]e should expect reviews to pick up, track and evaluate the programme theories that implicitly or explicitly underlie families of interventions.</th>
</tr>
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<tr>
<td>2</td>
<td>Interventions are active and achieve their effects through the input of individuals (such as patients, clinicians, educators and managers). As opposed to randomized controlled trials (RCTs), which aim to remove human volition from the experiment, the realist approach believes that stakeholder input is integral to understanding a program.</td>
<td>[W]e should expect that, in tracking the successes and failures of interventions, reviewers will find at least part of the explanation in terms of the reasoning and personal choices of different actors and participants.</td>
</tr>
<tr>
<td>3</td>
<td>Intervention theories have a long journey from conceptualization to implementation, and the success of the intervention may depend on the sequence and flow of the intervention.</td>
<td>[W]e should expect reviews to explore the integrity of the implementation chain, examining which intermediate outputs need to be in place for successful final outcomes to occur, and noting and examining the flows, blockages and points of contention.</td>
</tr>
<tr>
<td>4</td>
<td>The implementation chain for complex interventions does not always follow an orderly sequence and can go in reverse. The intervention will take shape according to the power of the respective stakeholders involved.</td>
<td>[W]e should expect the review to examine how the relative influence of different parties is able to affect and direct implementation.</td>
</tr>
<tr>
<td>5</td>
<td>Interventions are fragile and embedded in multiple social systems. Programs are not equally effective in all circumstances due to the influence of context.</td>
<td>The realist reviewer should expect the same intervention to meet with both success and failure (and all points in between) when applied in different contexts. He or she must contextualize any differences found between primary studies in terms of (for example) policy timing, organizational culture and leadership, resource allocation, staffing levels and capabilities, interpersonal relationships and competing local priorities and influences.</td>
</tr>
</tbody>
</table>
Interventions are highly fluid and prone to be borrowed, influenced and changed by those who make policy and decisions. We should expect the same intervention to be delivered in a mutating fashion, shaped by refinement, reinvention and adaptation to local circumstances.

Complex interventions are open systems that have internal feedback mechanisms. As interventions are implemented, they change the conditions that made them work in the first place. Learning occurs that alters subsequent receptivity to interventions.”

Given the complexity of interventions and the significant task of “reviewing the effectiveness of such systems-within-systems” (Pawson et al. 2005, p. 23), it is important to develop and refine a theory of change, or program theory. The answer to the question of “what works for whom, in what circumstances and why”, is seen as the theory of change for the program being evaluated, and this “theory-driven” approach seeks to describe and refine explanations of program effectiveness (Pawson, 2013, p. 15). Pawson and Tilley (1997) point out that “the careful enunciation of program theory is the prerequisite to sound evaluation.” (pg. 56-57) Dixon Woods et al. (2011) describe program theory as answering the question of “what is the means by which this intervention might reasonably be expected to achieve desired effects?” (p. 167).

Realist evaluation, designed to uncover and understand the impact of an intervention in context, therefore is a clear fit with the research questions posed in this study, and the emphasis on context. Realist evaluation is not a research technique, but rather a “logic of inquiry that generates distinctive research strategies and designs, and then utilizes available research methods and techniques within these” (Pawson, Greenhalgh, Harvey & Walshe, 2004, p. 2; emphasis original). This approach is based on an
understanding of how complex interventions work – which then underlies the approach to evaluation. Pawson and Tilley (1997) suggest that programs work by introducing new ideas and/or resources into existing relationships, and that an important task of evaluation is to investigate the extent to which these pre-existing contextual structures enable or disable the intended mechanisms of change (p. 70). This approach has been depicted as the “realist evaluation cycle” which is contrasted to traditional “successionist” model of causality where a cause directly leads to an effect (Pawson et al. 2005, p. 21).

The realist evaluation cycle is a generative model of causality which suggests that to understand the relationship between a cause an effect in complex interventions one needs to understand the underlying mechanism that connects the two, as well as the context in which the relationship occurs (Pawson et al. 2005, p. 22). Pawson (2004) suggests “realist synthesis assumes that the transmission of lessons occurs through a process of theory building rather than assembling empirical generalizations” (p. 31).

The realist evaluation cycle (Figure 2.1) is an ongoing, iterative approach to understanding complex interventions. Using the “context, mechanism, outcome” (CMO) configuration can allow researchers to develop middle-range theories (or propositions). Pawson and Tilley (1997) describe CMO configurations as stating the following “programs work (have successful ‘outcomes’) only in so far as they introduce the appropriate ideas and opportunities (‘mechanisms’) to groups in the appropriate social and cultural conditions (‘contexts’). All else in realist evaluation follows from such explanatory propositions.”(p. 57)
Greenhalgh, Humphrey, Hughes, MacFarlane, Butler and Pawson (2009) further elaborate on what constitutes context, mechanisms and outcomes. Context is described as “the study’s organizational setting and external constraints, including financial and human resources, prevailing policies and technologies), “mechanisms” (the stakeholders’ ideas about how change will be achieved in an intervention), and “outcomes” (the intended and unintended consequences of the change efforts).” (Greenhalgh et al. 2009, p. 396). Greenhalgh et al. (2009) emphasize that the relationship between context, mechanisms and outcomes is not seen as fixed, and that certain contextual preconditions will create “generative causality” which “assumes that innovations, programs and interventions will work only in particular circumstances and that the purpose of the evaluation is to find those conditions: Which mechanisms work, in which contexts and to produce which outcomes?” (p. 396). Theory testing strategies are used to see how theories of generative causality work within, and across, different contexts. Pawson and Tilley (1997) argue “theory is the bridgehead between the goals of generalization and specification in evaluation research. Progress in evaluation research is thus about producing middle-range theory, of a kind abstract enough to underpin the development of a range of program types, yet concrete enough to withstand testing in the details of program implementation”(p. 116, emphasis original). The structure of this thesis as three case studies, with embedded cross-case analysis enables middle-range theories to be developed, tested and refined about care transition interventions and context.

_Figure 2.1_

The realist evaluation cycle (from Pawson and Tilley, 1997, p. 85)
A paper by Pawson et al. (2005) more clearly fleshes out steps, which include several sub-steps, on how to conduct a realist approach in evaluation (p. 24). A brief overview of these steps is below:

1. Clarify scope

   This includes identifying the question for the realist review, as well as the nature of the intervention and the theory of change associated with the intervention. Articulate the theories to be explored and design a theoretically based evaluative framework.

2. Search for evidence

   The evidence searching and sampling approach is focused on a literature review, and taking progressive steps to identify program theories and refine inclusion criteria given emergent data, alongside purposive sampling to test theories and snowball sampling to explore emergent hypotheses.

3. Appraise primary studies and extract data

   Appraise and assess relevant research in order to populate an evaluation framework with evidence.
4. Synthesize evidence and draw conclusions

Synthesize data and evidence to refine the program theory (eg. What works for whom, how and under what circumstances). Use contradictory evidence to gain insights about the influence of context and present conclusions as a series of contextual decision points.

5. Disseminate, implement and evaluate

Draft and test out recommendations with stakeholders, with a focus on levers that can be used in the current policy context and consider the extent to which one program or intervention might be expanded in one setting, modified in another and abandoned in another.

Realist evaluation offers a novel strategy for understanding how interventions are implemented within complex settings (Pawson et al., 2005, p. 24) however it has a number of important limitations, and weaknesses. First, Pawson et al. (2005) acknowledge some limitations to their approach by highlighting three theoretical and practical limitations for the realist reviewer, including (a) ensuring the research question is clear about which aspects of the intervention will be examined, (b) drawing upon information that may be informal (e.g. relating to interpersonal relationships and power struggles), and (c) limiting what will be delivered in terms of findings (p. 24). While some leaders in quality improvement science have looked towards realist evaluation as a tool to help build and deepen the evidence around quality improvement interventions (Berwick, 2008; Byng, Norman, Redfern & Jones, 2008; Ogrinc and Batalden, 2009), the theoretical and practical limitations and challenges to undertaking this approach have been widely cited, and critiques go beyond what Pawson has outlined.
2.2.1 Limitations and Criticisms of Realist Evaluation

Critics of realist evaluation have focused on the feasibility of conducting this type of research. Marchal, van Belle, van Olmen, Hoeree and Kegels (2012) conducted a systematic review of realist evaluation in health services research, and pointed to relatively few published realist evaluation studies in the fifteen years since Pawson and Tilley first released their landmark book, *Realistic Evaluation*, in 1997. Marchal et al. (2012) suggested that the paucity of studies demonstrated that this approach was difficult to apply in practice.

Indeed, there are practical and epistemological challenges to conducting realist evaluations. In terms of practical challenges, there has been considerable diversity in the application of realist evaluation to research questions with differing definitions of key terms as well as varying interpretations of research methods and approaches (Marchal et al., 2012, pp. 200–204). There are key concepts that remain undefined in realist evaluation, leading to inconsistencies in how concepts are applied to the study of various phenomena. It also can be a challenge for researchers to undertake realist evaluations due to the time-consuming nature and the lack of methodological guidance for this approach. Concerns have also been raised about the peer review process and criticism of the academic credibility of realist evaluation, as well as the external validity of the approach (Marchal et al., 2012, p. 206). Among the practical challenges is the absence of relevant theories to apply to the problem being assessed by the realist evaluator; in particular, there are few instructive examples within the field of realist evaluation of health programs (Marchal et al., 2012, p. 197). Blamey and Mackenzie (2007) argue that since realist evaluation focuses on developing context, mechanism and outcome configurations, this approach is more
suited to learning about specific program attributes than it is to a broader evaluation of complex multi-site interventions that have multiple outcomes (p. 451). Finally, Blamey and Mackenzie (2007) cite the high possibility of introducing bias into a study, particularly since researchers are working in close proximity to implementers (p. 451). The practical challenges identified allude to a more significant critique of realist evaluation, namely that the process of conducting realist evaluation compromises researcher objectivity. Approaches to ensuring objectivity, and mitigating bias are described in detail in Chapter 3.

Marchal et al. (2012) also highlight variations in an understanding of the epistemology underlying realist evaluation, noting how some published studies argue that realist evaluation has a constructivist ontology and an interpretive epistemology, while others claim realist evaluation adheres to critical realism. Marchal et al. (2012) go on to suggest that interpretations of the philosophical underpinnings of realism (particularly different understandings of causality) influence the way realist evaluations are undertaken and the manner in which mechanisms are analysed (p. 202).

There is also debate within evaluation sciences about the extent to which researchers who aim to undertake a realist evaluation are borrowing from another approach to evaluation: theory-driven evaluation. Theory-driven evaluation has been defined as “an evaluation strategy or approach that explicitly integrates and uses

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These philosophies of science are related to how knowledge is conceptualized and understood. Constructivism suggests that all knowledge claims, and the evaluation of this knowledge takes place within a constructed framework. Whereas, critical realism suggests that there is an objective truth which can be ascertained through social science methods (Schwandt 2007, pg. 38 & 257).
stakeholder, social science, some combination of, or other types of theories in conceptualizing, designing, conducting, interpreting and applying an evaluation.” (Coryn, Naokes, Westine & Schroter, 2011, p. 201). Some evaluation scholars suggest that realist evaluation is a subset of theory-driven evaluation, however there is debate on this, as Blamey and Mackenzie (2007) point out, these two views of evaluation have different approaches to articulating theory and approaching the evaluation process, with theory-driven evaluation more focused on developing linear models, which directly conflict with the realist conceptualization of CMOs as being more cyclical and iterative (p. 442).

Nevertheless, critics of realist evaluation have noted that “middle-range theories” of context, mechanism and outcome configurations are quite similar to developing a “theory of change” in evaluation, and have been used interchangeably in some published realist reviews (Marchal et al., 2012, p. 202; Blamey & Mackenzie, 2007, p. 440).

Pawson (2013) has responded to the above practical and epistemological criticisms by saying that realist evaluation is not “a strict technical procedure” or approach to evaluation, but rather a research strategy (p. 14). However, this response does not directly address critiques around some of the practical challenges of conducting a realist evaluation. While this study was conceptualized as being informed by realist evaluation, focused on understanding the interaction between intervention mechanisms and context, critiques of realism also informed the approaches taken to developing the conceptual framework, as well as articulating research methods. Informed by the idea that realist evaluation is an overall strategy that is focused on understanding the program theory and its interaction with context, this study aims to clarify key terms within Pawson through an integration of frameworks from health services research and implementation science. The
development of a workable and clear framework through which a study of the interplay between care transition interventions and organizational context can be approached is described in the following sections. In addition, a clear step-by-step description of the research methods and process are described in chapter 3 in order to mitigate some of the practical criticisms associated with realist evaluation around research bias.

2.3 Theoretical Framework

Realist evaluation has not been rigorously applied to studying care transition interventions. This thesis is an exploratory study and is situated in the early stages of the realist evaluation cycle (as seen in Figure 2.1), wherein theories around the interplay of context, intervention mechanisms and outcomes are being explored. The use of a realist evaluation approach is appropriate given the complexity of the interventions, as well as the complex policy and organizational contexts in which they are embedded.

This study was partially motivated by calls from quality improvement science literature for a realist approach to understanding the complexity of quality improvement interventions. However, given limitations and challenges to conducting realist evaluations described earlier, a theoretical framework was developed to guide the research process. The framework accomplishes this by integrating approaches from various literatures—including health services research, realist evaluation and implementation science— to order the interplay between context and care transition interventions. This helps to clarify ambiguities within realist evaluation about what comprises context, as well as which attributes of context are important to consider when examining their relationship with
care transition interventions. The integrated theoretical framework also draws on well-defined concepts articulated in quality improvement science about the components of organizational context, and those expressed in implementation science about the implementation of interventions within complex environments.

Care transition interventions have been described in the preceding sections as being complex interventions that are influenced by the contexts of the organizations or entities in which they are implemented. Realist evaluation highlights the challenges of evaluating complex interventions given the complex contexts in which they're embedded (see Table 2.1 for a summary of the principles of complex interventions and the expectations of realist review), but it also leaves many concepts undefined (including what constitutes organizational context and what is included in an implementation chain).

A starting point for the conceptualizing context in this thesis was the description in Pawson and Tilley (1997) of context encompassing “the prior set of social rules, norms, values and inter-relationships gathered in these places which sets limits on the efficacy of program mechanisms” (p. 70). However, this statement lacks specificity about what attributes of context are most germane to care transition interventions. The problem of defining context has been recognized as a challenge, specifically within quality improvement science. A special report, prepared for the United States Agency for Healthcare Research and Quality (AHRQ) Assessing the Evidence for Context-Sensitive Effectiveness and Safety of Patient Safety Practices: Developing Criteria described a process whereby a technical expert panel of quality improvement science experts deliberated over defining and finding appropriate measures for relevant attributes of context influencing patient safety practices.
As previously noted, we lack a universally agreed-upon definition of what constitutes "context." Context can be conceptualized as consisting of a discrete number of known constructs (e.g., organizational complexity, patient safety culture, etc.) all the way to everything that is currently unexplained or unknown about why a patient safety practice (PSP) implementation succeeds or fails. In our discussion with the technical expert panel (TEP), we constantly found ourselves asking (when considering a particular construct), "Is this context or is it part of the intervention?" Consequently, we determined that trying to reach agreement on what constitutes the boundaries of context would not be as fruitful as concentrating on a limited group of constructs that all agreed were important and could be considered contextual variables. (Shekelle et al. 2010, p. 43)

This process identified four “high priority contexts” important for patient safety practices, or quality improvement interventions. Shekelle et al. (2010) defines these “high priority contexts” as the characteristics of an organization and its surrounding environment that influence the effectiveness of quality improvement interventions (p. 43). These four contexts overlap, and expand upon Pawson and Tilley’s description of an organization’s context. Shekelle et al. (2010) organize these “high priority contexts” into four domains: (pp. 43-45).

2 External factors such as regulatory requirements, payments or penalties, local sentinel events, marketplace competition and competing demands.

3 Structural organizational characteristics, such as size, location, academic status, financial status, volume.

4 Teamwork, leadership, and patient safety culture such as patient safety culture at the organizational or unit level, teamwork at the organizational or unit level and leadership at the organizational or unit level.

5 Management/implementation tools, such as staff education and training, designated staff time to implement, use of audit and feedback, incentives, extent of project management and implementation processes.

Shekelle et al. (2010) provide a useful and clear set of examples of what constitute high priority contexts, however do not focus on the processes by which interventions are introduced, adapted and implemented within organizations. “High priority contexts” for
patient safety intervention do provide a useful means of sorting and organizing various components of organizational context, but they are not dynamic. While Shekelle et al. (2010) do include timeline of implementation and implementation process as examples of management tools, a more depth exploration is needed to understand the various phases of implementation of the intervention. The dynamism of the interplay of organizational context and the intervention is not adequately reflected in these attributes of context. In order to incorporate the dynamic process of the interventions’ interaction with context over time, theories drawn from implementation science provide greater depth in analyzing these relationships. Detailed case studies developed in chapter 4 of this thesis provide an opportunity to explore and analyse which components of context are important across the introduction, adaptation and implementation of the intervention.

This thesis draws upon the Replicating Effective Programs Framework (REP) for health care interventions, developed by Kilbourne et al. (2007) to understand the various phases of an intervention. This framework outlines how health care interventions can be implemented across heterogeneous organizational settings, and it takes into account both the process of tailoring an intervention to fit organizational context and the various stages followed as interventions are introduced, adapted and implemented (also known as a “roadmap”) (Kilbourne et al., 2007, p. 41). The REP framework provides significant depth on preconditions for the implementation of an intervention, implementation and evolution (see Figure 3, Chapter 1 for the Kilbourne REP Framework). As an implementation framework, it combines strategies to maximize both fidelity and flexibility when implementing interventions in health care (p. 42). Aspects of the framework – focused on introduction, implementation and adaptation of an intervention - were drawn upon to
articulate the dynamic process and phases of implementation. It should be noted that specific intervention mechanisms and outcomes are not included in the framework, as these vary between interventions and settings. These are more deeply reflected in the CMO statements, or propositions, developed in the final chapter of this thesis. This framework really intends to clarify which attributes of context are important vis-à-vis this intervention and serve as a guide for further analysis.

Figure 2.2

Integrated theoretical framework of the interplay between organizational context and care transition interventions
The following three sections provide a brief review of how concepts from the theoretical framework have been understood in the literature on organizational behavior. In particular, concepts from the integrated theoretical framework that require some framing from the research literature are highlighted and discussed. Given that a significant
focus of this study is the comparison of cases of similar interventions across heterogeneous contexts, the organizational behavior literature was used to provide sensitizing concepts for the constructs in the integrated theoretical framework, as well as the development of research questions, interview guides and data analysis.

2.4 Teamwork and Culture

Care transition interventions are often implemented from the top down as managerial or policy imperatives to achieve a strategic aim. Often these programs are associated with new structures of interorganizational relationships that aim to improve the transition of patients from the hospital back to the community setting. However, the research literature indicates that structural changes alone do not deliver improvements in health care quality and performance and that the individuals and environments where these changes are being enacted are crucial (Scott, Mannion, Davies & Marshall, 2003, p. 924). Change management and cultural transformation considerations are important to consider alongside transition intervention programs; for example, interventions may bring managers into conflict with physicians who value professional autonomy and resist attempts to have their practices and performance measured, changed or managed (Marshall, Mannion, Nelson & Davies, 2003, p. 599). Similarly, cultural tensions may exist between subcultures, or so-called “professional tribes”, within an organization (such as management and groups of clinicians), as well as between organizations, including hospitals and community providers (McNair, 2005, p. 359).

Quality improvement collaboratives often rely on the development of interprofessional teams or groups with responsibility for the intervention. These groups often draw members from various professional groups, management and sometimes
different organizations. Team dynamics will relate to whether these teams are newly formed, or have had previous experiences working together, in which case there will be pre-existing cultures and subcultures, established by unit and organizational leaders. In exploring the intraorganizational and interorganizational context around the design and implementation of care transition interventions, this research draws from theories of organizational culture and change in order to assess the interplay between culture and the intervention introduction, adaptation and implementation. Questions about the interplay between culture and the intervention—drawn from the study’s theoretical framework—will be asked of both decision-makers and team members. This section will consider theories and meanings of culture and approaches to understanding teamwork and considering their application to the questions asked in this thesis.

2.4.1 Theories and Meanings of Culture

In the text *Organizational Culture: Mapping the Terrain*, Martin (2002) conducts a wide overview of the extensive published research literature around organizational culture. She observes that there are many varied definitions of culture within organizational sciences, however highlights that there are two features common to such definitions: the use of the word “shared” and references to culture as being distinctive or unique to a particular context (p. 56). Sociological and anthropological traditions also have influenced the meaning of culture. Semiotic and symbolic interactionism theory suggest that culture is something that resides in the minds of individuals (Cameron & Ettington, 1988, p. 360). Functionalist and empiricist theory, however, view culture as a component of the social system that manifests in organizational behaviors (Cameron & Ettington, 1988, p. 360). The assumptions in this thesis align with the functionalist and empiricist
anthropological approach: culture will be described as being shared at the organizational and unit level.

2.4.2 Approaches to Understanding and Assessing Culture
Organizational culture denotes a wide range of social phenomena, including factors such as an organization’s customary dress, values, assumptions, status symbols, and modes of deference and subversion. All of these phenomena (and more) define the character and norms of an organization (Scott et al., 2003, p. 925). The challenge of assessing culture is that researchers disagree on approaches to studying it and ways of measuring its phenomena and their manifestations (Scott et al., 2003, p. 928). As such, research on organizational culture draws upon a variety of epistemological and ontological assumptions, and it uses an array of methodological approaches.

In general, however, there are three main approaches to the study of organizational culture: holistic, metaphorical and quantitative studies. Holistic studies emphasize the whole organization and its culture, and outside investigators are required to take an emic (insider) approach by immersing themselves in the culture. In essence, they become insiders, giving them a deeper understanding of the culture. The second approach—metaphorical studies—assesses language, documents and communications within an organization to detect patterns, rituals and stories that describe the culture and its manifestations. Finally, quantitative studies take an etic (outsider) approach, using survey tools and statistical data analysis to quantify, sort or order organizational climate and culture (Martin, 2002, p. 37; Cameron & Ettington, 1988, pp. 366–367).
Qualitative approaches are well suited to move beyond measurements and superficial typologies of culture, allowing them to use conceptual frameworks to explain various dimensions of culture. As such, the choice of qualitative methods for this study (described in further detail in Chapter 3) is justified because interviews, observation and document analysis will enable an in-depth exploration and understanding of organizational – and unit – level culture, as well as its interplay with the intervention. The resulting rich qualitative data provides access to an understanding of culture from multiple perspectives. For this study, such data was generated by interviews conducted with so-called cultural insiders (including administrators and providers within organizations) and cultural outsiders (including MOHLTC and organizational decision-makers, who may have a sense of the organization’s cultures without working within them). Triangulation of the various cultural features of the organizational environment(s) was done through the layering of many perspectives.

2.4.3 Interprofessional Teamwork
Understanding professional behavior related to collaboration, cooperation and protectionism, both within and across organizations, is critical to transitions of care. Complex patients can access care from multiple professionals either in one clinical setting, and more likely across multiple settings such as acute care, primary care and community care. Interprofessional teamwork is an important aspect of achieving patient outcomes in transitions of care, and it is a component of each of the interventions (Coleman, 2003, p. 549). For example, care transition interventions often bring together interprofessional groups who may not be accustomed to working together in this context, placing them in new roles.
Furthermore, many interventions suggest the introduction of a case manager, who can serve as the main point of contact between the patient and the rest of the intervention team. The presence of a case manager, however, may prove problematic. It may challenge those within the care team who perceive themselves as having the case management role, and because various professions have different approaches to patient care, some may perceive case management quite differently than others. Furthermore, because health care professionals identify within their professional group, they often are bound by shared meanings, practices and skills, described as “professional tribalism”8 (Atkins, 1998, p. 304). Since these groups are engaged in ongoing attempts to define the conditions and methods for their work, as well as a desire to legitimate their autonomy (DiMaggio and Powell, 1983, p. 152), they can feel threatened when other groups attempt to encroach upon their “territory” or area of expertise. This can result in behaviors associated with “professional tribalism” where health care providers attempt to protect what they perceive as their sole scope of practice (McNair, 2005, p. 359).

Transition interventions often involve care coordination across an interdisciplinary team of providers, as well as the assignment of new or specific roles to professionals. Pre-existing teamwork and relationships between (and among) provider groups are contextual features of the environment and organization, and they will influence how the intervention is adapted and implemented. In this study, questions around how professional identities have influenced transition interventions were explored by interviewing members of the intervention team within the organization and probing specific questions about both the

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8 Tribalism occurring at the subpopulation level, however, can be utilized to understand the behavior of some professionals who feel protective over specific areas of specialization and care.
individual roles and team culture. Methods, including observation, were used to observe more subtle aspects of culture and interprofessional team dynamics; and these are discussed in further detail in Chapter 3.

2.5 Organizational Structural Characteristics

Bodenheimer (2008) suggests “improvement in care coordination requires that different health care entities, sometimes working in competition, perform together” (p. 1070). Like care coordination, transition interventions require organizations to work together. Within the clusters of organizations being studied—including hospitals, family health teams, Community Care Access Centres (CCAC) and other community providers (such as family physicians)—the relationships between organizations span the continuum: collaborative and productive, conflicting and competitive, established and newly formed. Regardless of the form they take, the relationships between these organizations will influence the intervention. In some cases, the relationships between the organizations are redefined and revisited to facilitate the intervention. For the purposes of this study, the processes of these relationships were understood using interorganizational relationship theory. Shekelle et al. (2010) do not specify where interorganizational relationships fit within the four high priority contexts. The below review of relevant concepts from interorganizational theory can help to appropriately frame interorganizational relationships, which constitute an important contextual aspect of care transition interventions.

2.5.1 Interorganizational Competition and Cooperation

Theories on interorganizational relationships can help explain why organizations collaborate and compete, creating incentives or barriers for transition interventions. Hall, Clark, Giordano, Johnson and Van Roekel (1977) suggest that coordination occurs as
organizations attempt to cope with their environment whilst maximizing goal attainment (p. 457). The nature and scope of organizational goals will influence the range of cooperative opportunities available to an organization. For example, organizations with similar goals tend to perceive each other as competitive, while organizations with complementary goals tend to perceive each other as cooperative (Baker & O’Brien, 1971, p. 135; Schermerhorn, 1975, p. 851).

Coordination is understood as organizations “managing uncertainty,” but within this uncertainty, it is theorized that conflict and coordination appear as organizations collectively strive to maximize their control over their dependency on the collective network (Provan, 1984, p. 494; Alter, 1990, p. 483). Guo and Acar (2005) describe these two seemingly different pressures on organizations as creating “dynamic tensions” between the desire to manage resource dependence while maintaining organizational autonomy (p. 346). However, organizations are often compelled to cede autonomy in order to survive. Guo and Acar (2005) reference research by Singer et al. (1991) which found that financial stability, particularly for smaller organizations, emerged as a primary incentive to collaboration (p. 346). Following in this logic, it is possible that if smaller organizations are facing resource constraints or challenges, they will be more inclined to collaborate formally; conversely, larger organizations that are financially stable may be less inclined to collaborate (Guo & Acar, 2005, p. 346). This is a frequent scenario in the Ontario health care environment, where health care provider organizations, such as acute care or specialized hospitals have merged, in part because they were no longer financially viable as independent organizations.
Coordinated and continuous health care is valued by patients and caregivers, but organizations tend to behave in ways that do not support coordination. Organizations participating in the care of one patient may have different goals and use different strategies of care (Alter, 1987, p. 31; Sofaer, 1994, p. 80). This organizational independence is problematic for coordinated care. Organizations develop their own client care goals, processes and approaches to care based on perceived areas of specialization, as well as evaluation expectations and measures (Sofaer, 1994, p. 80). As noted by Sofaer (1994) “a major challenge for any effort to integrate or coordinate care is to address the organizational activities, not just in individual organizations but in a network of organizations” (p. 80).

Provan and Milward (2001) note that for vulnerable populations (such as the frail elderly), supportive non-clinical services are required (e.g. housing assistance, self-care support and transportation) (p. 647). Most organizations involved in direct patient care, however, do not have competencies or staff to provide supportive services, which often are perceived as less prestigious, more labour-intensive and less desirable than clinical services (such as acute care). As a result, transition interventions and the provision of care across transitions requires the development of stronger relationships, greater respect and increased reciprocity between organizations that seek different goals, have independent missions and pursue divergent strategies of care. For this study, questions were asked of intervention leaders, and organizational decision makers around how pre-existing interorganizational relationships were affected over the course of the transition intervention. Interviewing individuals in leadership positions with insights into
interorganizational relationships and dynamics provided insights around the drivers of interorganizational collaboration and conflict.

2.5.2 Resource Dependency Theory

Interorganizational relationships are often forged for reasons of resource dependency (De Wever, Martens & Vendenbempt, 2005, p. 1529). These relationships can be formed through organizational alliances at a corporate level, or through a deepening of relationships between individuals working within respective organizations. While notions of tribalism and professional autonomy (described above) can encourage protectionism and act as a barrier to effective care transitions, they also can help develop linkages between organizations. Professionals can act as boundary spanners between organizations insofar as they share professional norms and values that supersede organizational affiliations (DiMaggio and Powell, 1983, p. 152).

The types of relationships that can be fostered between organizations depend upon who in the organizational hierarchy is engaged in them. For example, when a patient is discharged from hospital to community-based supportive care, interactions between various levels of an organization (or different organizations) can influence the effectiveness of this transition (Sofaer, 2009, p. 82; Bergman et al., 1997, p. 1117). For example, interactions occur between front-line staff of the discharging and receiving organizations in order to facilitate these transitions (Polivka, 1995, p. 113), and if these interactions are only occurring between front-line workers, the transitions are handled on an individual basis. If middle managers (with roles such as a director or manager at the hospital or community agency) are involved, however, the organizations can develop formal, joint policies and procedures to deal with client transitions, thereby reducing risk to patients
and enhancing trust between organizations (Sofaer, 2009, p. 82). Woolridge, Schmidt and Floyd (2008) suggest that middle managers are uniquely positioned to influence strategic change within organizations, and that they have the capacity to identify opportunities and develop initiatives (p. 1216). Transaction cost theory suggests that if managers perceive these opportunities to have a low transaction risk, relationships will be formed more readily. Risk can be further reduced through the involvement of senior staff (such as a hospital vice president or community agency director), who can create rules governing the transition of patients, including formal memoranda of understanding or contracts around transition interventions (Sofaer, 2009, p. 82).

Ring and van de Ven (1994) propose that sense-making among parties increases the likelihood of a cooperative interorganizational relationship (p. 101). Sensemaking within organizations is defined as the process of dealing with one’s environment and negotiating ambiguity and uncertainty when making decisions. Sensemaking can include such things as “the placement of items into frameworks, comprehending, redressing surprise, constructing meaning, interacting in pursuit of mutual understanding and patterning” (Weick, 1995, p. 6). The sense-making process involves key cognition processes of managers around reciprocal interaction of information seeking processes through scanning, interpretation and meaning ascription and responding or decisions (Thomas, Clark & Gioia, 1993, p. 240). Sofaer (1994) suggests that certain characteristics of organizations enable the sense-making process and reduce uncertainty around decision-making if organizations share the following:

- linkage by formal contracts or agreements;
- knowledge about the policies, procedures and current circumstances of the organizations;
• histories of positive interactions between organizations;
• organizational missions or cultures that are similar; and
• ownership and operation by the same supra-organization (p. 81).

These factors will reduce perceptions of the transaction risk and enhance interorganizational relationships and cooperation. Professional and organizational protectionism are powerful constructs, however in the case of care transitions, organizations do recognize that they cannot provide the full scope of care on their own. As such, the literature suggests that organizations will cooperate to achieve their ends.

Using theories from organizational behavior and management to support analysis, this thesis explores how formal and informal sense-making processes underlie interorganizational relationships which are either formed, or pre-exist care transition interventions. Questions were asked of policy informants, organizational decision makers and intervention leads around what formal policy factors facilitate these relationships (such as government strategies and funding, or shared regional governance bodies), and which informal factors enable interorganizational collaboration and cooperation around transitions. At the organizational level, an understanding of formal and informal levers is explored from the perspective of front-line health care providers who actively span boundaries between organizations, and questions were asked about the relative influence of these formal levers (such as remuneration schemes and contracts) and informal levers (such as a history of positive interaction and so-called good relationships) in the implementation of care transition interventions.
2.6 Management Tools

Shekelle et al. (2010) note that the management tools high priority context can influence the implementation of a patient safety intervention, however do not provide a precise definition of management tools. Rather, specific examples of management tools are listed, including staff education and training, dedicated time for training, the presence of incentives and the degree to which interventions have been tailored for local needs (Shekelle et al. 2010, p. 43). While specific examples of management tools are helpful, an overall understanding of key concepts that characterize the term in change management literature is particularly useful for guiding case study questions and analysis. Change management and change fatigue are briefly explored in the below section, and a review of the literature on these concepts is important given that the three case studies for this thesis focus on how care transition interventions (which are inherently a change process) are introduced, adapted and implemented.

2.6.1 Perspectives on Change Management

The literature on change management has been critiqued as lacking a sound empirical basis, relying heavily on anecdotes, case studies and unproven models. The meaning of change management varies based on the discipline in which one is based, and the application of the concepts. There is no one accepted definition for change management, but rather discussions around what change means, and at what level it is being enacted. Weiner, Helfrich and Hernandez (2006) describe organizational change as a “broader concept that deals with any modification in organizational composition, structure or behavior – new or not new to the organization” (p. 392). Mills, Dye and Mills (2009) define organizational change as “an alteration of a core aspect of an organization’s operation” (p.
4) but note that this change can occur at various levels of the organization – organizational, group or individual. Organizational success, and survival, are often contingent on the ability of the organization to change – and Mills et al. (2009) point out that the recognition of the importance of change for an organizations’ viability has led to the development of change management approaches and theories (p. 9).

In health care organizations, change management is deeply intertwined with the culture of organizations and units. Scott et al. (2003) highlight how culture change is a key element of system redesign, with the management of organizational culture seen as an essential part of health care reform (p. 111). Scott, Mannion, Davies and Marshall (2003) then go on to note that there are a number of factors that can impede culture change across sectors in health care, including inadequate or inappropriate leadership, constraints imposed by external stakeholders and professional allegiances, perceived lack of ownership, and subcultural diversity within health care organizations or systems (p. 114). Scott et al. (2003) also suggest a number of strategies available to managers and decision-makers when dealing with these barriers. Table 2.2 (below) provides a brief description of both the barriers and potential strategies for overcoming them.

Table 2.2

Overcoming resistance to planned culture change (adapted from Scott et al., 2003, pp. 114–117).

<table>
<thead>
<tr>
<th>Overcoming resistance to planned culture change</th>
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<tbody>
<tr>
<td>Lack of ownership</td>
</tr>
<tr>
<td>Complexity</td>
</tr>
<tr>
<td>Media (including rewards, written documents, physical spaces and professional demarcations). Successful change strategies require a realistic time frame to implement complex and multilevel change across these various media.</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td><strong>External influence</strong></td>
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<tr>
<td><strong>Lack of appropriate leadership</strong></td>
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<tr>
<td><strong>Cultural diversity</strong></td>
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<tr>
<td><strong>Dysfunctional consequences</strong></td>
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</table>

In their examination of the implementation of change initiatives in interprofessional education for collaborative practice, Ginsburg and Tregunno (2006) pick up on many of the factors identified by Scott et al. (2003). They focus on the individual, organizational and system domains to assess forces for and against change. At the individual level, strong professional cultures and the development of motivational incentives for change are highlighted as important factors (Ginsburg & Tregunno, 2006, p. 180). Particularly germane to change management is what Ginsburg and Tregunno (2006) describe as “the need to motivate change.” (p. 179) This requires managers to facilitate the process of professionals “buying in” by motivating change amongst the staff as they go through the process of (1) becoming aware of the change, (2) intellectually agreeing with it, (3)
deciding to adopt the change and (4) adhering to the change (Ginsburg & Tregunno 2006, p. 179).

At the organizational level, Ginsburg and Tregunno (2006) highlight how the alignment of the change intervention in relation to the existing context, culture and climate is crucial to successful change. Organizational climate is associated with practices, procedures, policies and routines, as well as the behaviors that are expected from staff and subsequently rewarded. If the change initiative is aligned with the climate—and incentives are present within the climate—the initiative is more likely to succeed (p. 181). The role of leaders as enablers of change is also noted, highlighting both their importance as champions in garnering support and commitment for a change initiative, and their role as organizational leadership who align changes to organizational goals (Ginsburg & Tregunno, 2006, p. 182).

Finally, Ginsburg and Tregunno (2006) highlight system-level issues relevant to change. They point out that while management incentives are important to facilitate change at the organizational level, radical changes at the system level are sometimes necessary to make substantive change (p. 182). Change is more likely to be successful if accompanied by policy-level incentives that can be made at the level of regulatory or legislative changes.

2.6.2 Change Fatigue

The quality improvement literature highlights a long-standing consensus among professionals and policy-makers about the need to improve health care quality and systems (Grol, Baker & Moss, 2002, p. 110). Grol et al. (2002) characterize the challenges that
organizations and individuals in health care face in coping with these various changes as follows:

New initiatives aiming to cure our ailing systems come in droves. This is an international phenomenon ... Some focus on changing professionals, others on changing organisations or interactions between parts of the system; some emphasize self-regulation, others external control and incentives; some advocate “bottom up” and others “top down” methods. (Grol et al., 2002, p. 110)

Managers are often tasked with the translation of change initiatives to the organization—whether they are being implemented at the unit, organizational or system level. In a study of organizational changes in industry, Huy (2001) assesses large-scale change in organizations and focuses on the impact of these changes on employees, highlighting how multiple change initiatives upset employee relationships, quality of work and work routines (p. 610). Change-fatigued organizations are defined as those undergoing successive and overlapping change initiatives that see them “constantly out of synchronization” and this phrase can be extended to the individuals who are working within organizations or units undergoing these successive change initiatives (p. 612). Finally, Huy (2001) emphasizes the role of timing in implementing change intervention, suggesting that successive and overlapping change may in fact lead to “change fatigue” rather than readiness (p. 612).

Change fatigued organizations and individuals have been highlighted as a risk of change initiatives. A 2004 editorial in *Quality and Safety in Health Care* entitled “Are we suffering from change fatigue?” reflected on the constant state of change within England’s National Health Services (NHS), and its impact on individual staff.

Quality improvements require change. Performance improvements require change. When a health system aspires to both over a sustained period there is a serious risk of “change fatigue”—key players getting tired of new initiatives and the way they
are implemented—invariably the key players needed to make the changes work and bring in the improvements. (Garside, 2004, p. 90).

Organizational development literature is seen as a source of knowledge to manage change fatigue amongst managers and clinicians. Garside (2004) highlights key factors from organizational development that can mitigate change fatigue, such as alignment of the change with the organization to create “a congruence of aims,” leadership that looks to specific motivations of staff, and incentives, such as resources and time dedicated to the change (p. 90). Garside (2004) emphasizes how change strategies need to be tailored to particular groups within an organization, as that the way managers cope with change is different than clinicians, and that clinicians see change initiatives through their own professional domains – or “tribes” and that they may have allegiances to their profession, peers and patients above the organizations in which they work (p. 90). The incentives, disincentives and motivations for particular individuals or groups within organizations to participate in the changes associated with care transition interventions will be explored through interview questions with management and leadership, as well as front line clinicians. Ascertaining what motivates participation, or what is perceived to motivate participation, and the relative success and failures of these motivators will be considered in thesis case studies and analysis.

2.7 Summary

Pawson and Tilley (1997) are critical of evaluation science and research around social programs that “ignore and anonymize” the social contexts in which programs are embedded (p. 70). The cornerstone of realist evaluation is the appreciation for the context
within which programs are nested and attention to how program mechanisms are mitigated by that context. As such, Pawson and Tilley (1997) argue that “a crucial task of evaluation is to include (via hypothesis making and research design) investigation of the extent to which these pre-existing structures ‘enable’ or ‘disable’ the intended mechanism of change” (p. 70).

This study draws on realist evaluation in order to understand the interaction between organizational context and care transition interventions. Cognizant of critiques around conducting a realist evaluation, it also develops an integrated theoretical framework that draws on frameworks from quality improvement and implementation sciences to help order and guide research. Further, theories from organizational behavior and management are concepts that sensitize analysis of what constitutes attributes of organizational context that interact with care transition interventions. The following chapter will describe the methods used to conduct this research, and it will provide a detailed overview of how these methods will work to examine the problems set forth in the research questions.
Chapter 3

Research Methods

Scholars in quality improvement science have highlighted the potential of case studies for identifying factors that can facilitate or impede improvement and change. Baker (2011) suggests that case studies “offer the opportunity to enrich more traditional approaches to assessing interventions, helping to explain why some interventions are unsuccessful, or why they seem to work effectively in some contexts but not in others” (p. i34). Case studies were selected as the methodology for this study, in part due to the potential of this approach to detail and consider the complex systems in which care transition interventions are implemented. As highlighted in previous chapters, traditional research approaches such as randomized controlled trials have been unable to account for the role of the interaction of context on interventions. The following chapter presents the study’s research design, detailing research methods and process used. In addition to this, the case study methodology is described, and details around sampling strategy and approach, as well as participant recruitment and scheduling, are provided. Finally, the types of data gathered for the study are discussed, as are methods of data management, storage and analysis.

3.1 Research Design

The questions outlined in this thesis are exploratory and seek to understand how care transition interventions are adapted and implemented in various organizational contexts. The use of a case study is amenable to the research aims, as it can capture individual differences or unique variations from one setting to another (Shi, 1997, p. 131), with the
classic case study examining the interaction between the case and its context (Yin, 2013, p. 321). Baxter and Jack (2008) note that case studies should be considered when:

- the focus of the study is to answer “how” and “why” questions;
- the behaviors of the individuals being studied cannot be manipulated;
- contextual conditions that are believed to be relevant to the studied phenomenon are being assessed, and
- the boundaries between the phenomenon and its context are not clear (p. 545).

The case study approach offers a means to understand the interplay between contextual conditions and very broad, complex initiatives (such as quality improvement interventions) (Yin, 2013, p. 229). As such, case studies are well suited to understanding the interaction between organizational context and care transition interventions.

Case studies make an important contribution to understanding complex interventions, such as systems reform, service delivery integration, community and economic projects, and international development projects (Yin, 2013, p. 322). The realist evaluation approach is further suited to the problems addressed in this study, and can support the analysis of transition interventions as a quality improvement interventions in health care, and inform the development of theories (or, in this case, propositions) identifying the links between problems, interventions and outcomes (Baker, 2011, p. i31). A multiple case study design is used to explore and analyse within (and between) settings, and it can either predict similar results or predict contrasting results (but for predictable reasons) (Baxter & Jack, 2008, p. 550). In particular, Baker (2011) notes that theory developed from cases can help make sense of the complex relationships that exist in the health care setting and explain why interventions to improve quality may work in some
organizational contexts and not in others (p. i31). As such, the case study approach can address some of the gaps in the literature around care transition interventions and how the intervention interacts with context.

In addition to the case study format, a realist evaluation approach is used to understand the organizational context in which the interventions are implemented and how organizational context interacts with intervention mechanisms. A key goal of realist evaluation is to refine theories about how program mechanisms achieve outcomes in certain contexts. As such, an inductive approach to data analysis, informed by grounded theory strategies, was used to analyse and understand data gathered from the case studies, and to underpin cross-case analysis (Glaser & Strauss, 1967, p. 104). The focus of grounded theory methodology is to better understand behavior within an individual and organizational context, where the researcher collects data both in the actual environment in which the actions take place and in natural situations (in order to analytically relate informants’ perspectives to their environment) (Goulding, 2002, p. 42). Grounded theory methodology is a highly rigorous specific set of procedures for producing formal theories of social phenomena, but it also is a general method of comparative analysis of qualitative data (Glaser & Strauss, 1967, p. 1).

3.2 Case Selection
Yin (2009) suggests a number of considerations when employing a multiple case study design, noting that cases should be carefully selected so that they either predict similar results (literal replication) or predict contrasting results (theoretical replication) (p. 54). Yin notes that an important step in replication procedures—whether they are focused on literal or theoretical replication—is the development of a rich theoretical framework that
sets out the conditions under which the phenomenon being studied are found (or, conversely, not found) (p. 54).

The goal of this thesis was to select cases to help elucidate the research questions identified. As such, selection was focused on cases with similar attributes that share the same macro-level policy context and micro-level patient context, but that differ in the meso-level features of organizational context. Patton (1990) suggests that the logic and power of purposive sample is in selecting information-rich cases where the researcher can learn a great deal about the issues of central importance (p. 169). For this study, a purposive sampling approach was used which mixed criterion sampling (where cases meet a set of basic criteria) and convenience sampling.

Case study selection was purposive and considered the following criteria:

1. Is this a care transition intervention involving multiple providers and organizations that are focused on reducing readmissions for complex patients?
2. Is this a care transition intervention taking place in Ontario?
3. What is the availability and accessibility of the case (e.g. opportunity to observe team meetings, gather documents and interview front-line providers)?
4. Is there variation in the organizational context of the intervention?

Given the policy focus on reducing hospital readmissions and interest in improving patient safety and transitions of care, there were a number of care transition interventions in Ontario that had been implemented, were being implemented, or were in the planning phases. Of those interventions, though, only three met the case study selection criteria detailed above: Case A, Case B and Case C.
Shi (1997) notes that the choice of a research setting hinges on a number of considerations, including whether the site is consistent with the researcher’s question and interests, whether it is accessible and whether rapport with informants is possible (p. 133). Gaining access to a group can be challenging; individuals working in health care are busy with patient care, and among some groups there is a fatigue associated with researchers and being involved in research processes. Since the research was interested in interviewing front-line clinicians, however, considerations around negotiating access, building trust and valuing informants’ time were of critical importance. Obtaining entry to each case study site was done through the known-sponsor approach, where the researcher relies on the legitimacy and credibility of another person in order to establish her own legitimacy and credibility (Shi, 1997, p. 133). For each of the case study sites, the researcher was introduced to the physician lead through faculty members at the University of Toronto’s Institute of Health Policy, Management and Evaluation; the physician lead then facilitated formal introductions to the team and relevant individuals who helped to set up research access (e.g. access to team meetings and processes, intervention participants, and relevant documentation around the intervention).

It was very important to select programs that were ongoing at the time of data collection because this enabled the researcher to have the opportunity to observe the intervention in context while it was being implemented. As Patton (1990) suggests,

The nature of a program emerges from the interaction of the physical setting, the social environment of people in the program, the nature of staff leadership and administration, and the activities provided for in the program. The “personality” of the human, social environment will affect how program activities are perceived and experienced by participants. Thus it is helpful to frame observations in the context of both the physical and social environments of the program. (p. 223)
Given that this study is informed by realist evaluation, understanding the social context is critical—observation of these contexts is an important step towards understanding the interaction between program context and intervention mechanisms.

Another important step, once case studies are selected, is to be clear about what the case will not be. Scholars in case study methodology suggest cases should be bound by clear criteria, such as (a) time and place, (b) time and activity, and (c) definition and context (Baxter & Jack, 2008, p. 546). For this study, cases were bound by time and place, as the case study interventions began before the research was conducted and continued until after it was completed.

The cases also were bound by what was observable to the researcher. For example, the researcher observed team rounds and interviewed members of front-line staff present at those times, but cases did not include aspects of the intervention beyond this.

3.3 Research Ethics, Protocol and Consent

This study involved human subjects, and ethics approval was sought at each of the organizations in which the intervention to be studied was implemented. Each organization has a separate Research Ethics Board (REB) with its own requirements for approval, and applications for REB approval were submitted at each site. Each site also had its own processes and procedures in place to ensure that the study followed the ethics and research protocols. However, all sites required that a primary investigator from the organization be included on the REB application; in each case, the physician lead that helped negotiate access to the site acted as the primary investigator. The researcher
developed and completed all of the required forms for REB approval, including a letter of consent and a Research Protocol.

Ethics approval from the REB for Case A was granted on January 20, 2011. Ethics approval from the REB for Case B was granted on May 9, 2011. Ethics approval from the REB for Case C was granted on September 12, 2011.

Submissions to each REB included a Research Protocol, as well as sample consent forms. The Research Protocol outlined the study summary and purposes, proposed methods of data collection, expectations for anonymity, expected impacts and benefits for participating sites and individuals, and the study timeline. The consent form introduced the researcher and study, outlined the purpose and rationale for the study, described what participants will be asked to do, presented the risks and benefits to participants, and expressed the procedures for maintaining confidentiality.  

The Research Protocol explained potential negative and positive impacts of study participation, and it attempted to anticipate questions that research subjects had about participating in the study and to provide clear responses to those anticipated questions. Overall, the Research Protocol indicated that the negative impact of participating in the interview would be that it would take staff away from other work and responsibilities, but it also assured them that their time would be used judiciously during the interview and that all interviews were a one-time commitment. Individual schedules were accommodated as much as possible, with in-person interviews taking place during off-hours, prior to (or

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9 Please see Appendix 1 for the Research Protocol and a sample Letter of Consent
after) team meetings, and with one interview taking place over the phone. The main risk associated with participating in the study was a breach of confidentiality, but steps to maintain the privacy of key informants was taken to anonymize study data, such as assigning study ID numbers to transcripts. The potential benefits of participating in an interview indicated within the Protocol were the opportunity to participate in a meaningful conversation about their involvement with the intervention. This benefit of participating in the research aligns with Kvale's (1996) twelfth criteria of qualitative research interviews, which is that it is a positive experience (p. 31) (see Table 3.1 for all twelve criteria).

3.4 Case Study Research Design

As depicted in Figure 3.1 (below), Yin (2009) describes three broad stages of the case study method that were used as a roadmap in the design, development, collection, analysis and writing of this research. These three stages—(1) define and design, (2) prepare, collect and analyze, and (3) analyze and conclude—provide a high-level framework for the selection of research approaches and methods for this study. In particular, the following section will elucidate the research approach and methods employed for the preparation, collection and analysis of data for this study.
1. Define and design: The initial steps of designing a study focus on theory development and the articulation of questions and propositions, which are supported by theories of interorganizational relationship and culture, as well as the integrated conceptual framework articulated in Chapter 2. Case selection was conducted in a purposive manner, focused on care transition interventions being implemented in Ontario.

2. Prepare, collect and analyze: Data was collected using the convergence of multiple sources of evidence, including observation, document review and key informant interviews. Patton (1990) notes that this combination of data sources is expected in much social science research, and that multiple sources of information increases validity as the strengths of one approach can compensate for the weaknesses of the other (p. 244). Yin (2009) suggests that a key strength of the case study approach is the opportunity to use many sources of evidence, allowing the researcher to develop converging lines of inquiry. Findings or conclusions are more convincing and accurate if based on multiple, corroborated sources of information (p. 116).

3. Analyse and conclude. Chapters 5 and 6 of this thesis include a detailed cross-case analysis based on key constructs articulated in the theoretical framework. Baker (2011) suggests that case studies can inform the development of more robust theories that identify linkages between problem, intervention and outcome (p. i31)
3.4.1 Observation

Fieldwork—where a qualitative researcher has direct and personal contact with the people under study in their own environment—is a central activity of qualitative research (Patton, 1990, p. 46). Team meetings were observed by the researcher to get a sense of the group dynamics, as well as the contextual factors raised during key informant interviews. Patton (1990) notes “the observer’s notes become the eyes, ears and perceptual senses for the reader” (p. 26). While Patton emphasizes that the purpose of observation is intended to describe rather than analyse the setting (allowing the reader to make their own interpretation and analysis), he goes on to note that observation also facilitates the researcher having direct experience and knowledge to help understand the program being evaluated (p. 205).

Lincoln and Guba (1985) take this idea further, suggesting that no description is without judgment, as “the investigator and respondent together create the data of the research,” with any collection or description of facts being subject to individual analysis (p. 108). While Lincoln and Guba (1995) go on to reject positivism in research, arguing that “objectivity in its pure form is an unnatural state,” they outline some approaches to ensure a useful system of checks and balances in qualitative data, including member checks, debriefing by peers, triangulation of data sources, prolonged engagement and persistent observation, reflexive journals and independent audit (p. 108). Cognizant of the critiques of positivism, the process for this study included opportunities for member checks of observations and assumptions through key informant interviews, debriefing with researcher peers, triangulation of data sources, prolonged engagement (with the
researcher generally spending one day per week with the intervention team over a period of approximately three months per case), and the keeping of reflexive journals, notes and memos about the process.

Finally, observation can help facilitate “entry into the field,” whereby the researcher can establish trust and rapport with the individuals and organizations being observed (Patton, 1990, p. 251). In each case, observation of team meetings was conducted a few weeks prior to beginning key informant interviews. This ensured that the researcher was familiar with the intervention and the individuals involved, allowing for tweaks to be made so that the interview guide reflected the specific intervention. It also allowed the researcher to gain the trust of individuals involved.

Patton (1990) highlights several limitations to observation. The first is that group dynamics or individual behavior can change when participants know they are being observed. The second is that observations are limited to focusing on external behaviors, thus constraining researchers to only observe part of a program (pp. 244–245). Patton (1990) notes that when only part of a program is observed, the researcher must discern to what extent observed activities are typical or atypical of the program (p. 245).

For each case in this study, meetings of the clinicians participating in the intervention were observed. These included weekly status meetings to discuss the intervention program itself, provide updates on patient status or meet with partners. During these meetings, the researcher would take detailed notes about the setting, environment, interactions and conversations. These notes were a resource in the analysis and provided insights into the more subtle aspects of team dynamics, culture, roles and
leadership. However, Research Ethics Board approval for this study required that no patient information or identifiers be part of study data. Patients participating in the interventions are medically and socially complex, and there was a consensus amongst intervention leads as well as REB members that a qualitative study conducted by a researcher external to the organization should not include patient information. As such, team meetings were not digitally recorded, nor were verbatim notes taken since much of the meetings involved discussing details of care for patients. During participant observation, the researcher took detailed notes of the culture and used reflexive memoing and journal techniques to detail the team culture and dynamics observed at these meetings.

3.4.2 Document Review

Documents, described by Patton (1990) as “the trail of paper that the evaluator can follow and use to increase knowledge and understanding” about a program being studied (p. 233), were an important part of the data collected for this thesis. Documents are a rich source of program information as they serve the dual purpose of (1) providing basic information about program decisions, background, activities and processes, and (2) giving the evaluator ideas about questions to consider during interviews (Patton, 1990, p. 233). Access to documents and records was facilitated through key informants, and individuals in leadership roles related to the intervention were asked to share relevant program documents (both internal and external). The internal documents included meeting minutes and agendas, performance measurement schema, progress reports, proposals for funding, and slides. External documentation included material about the program for program funders, partner organizations and the public.
According to Yin (2009), a strength of using documents in case study research is their ability to corroborate and augment evidence from other sources by providing a stable, unobtrusive way to verify details (such as names and dates) that were mentioned during interviews (p. 103). The weaknesses of documents are related to bias and accessibility, since key informants mitigate access to internal documents. Patton (1990) adds that program documents are subject to a variety of measurement errors, and that they may be incomplete and inaccurate, varying in quality and selective in content (p. 245). Nevertheless, according to Patton, document review is described as enabling access to information about the program that is not directly observable or readily available (often because the interviewer did not ask the appropriate questions or did not focus on the relevant topics during interviews) (p. 245). Documents were used to validate program information and details in case studies, but were not used in data analysis for this study. There was also variability in terms of the level of detail and information in the documents provided to the researcher across the three cases and this information was used primarily as background rather than core data.

Gathering data from multiple sources also enhances the overall validity and reliability of qualitative research, with the relative strengths and weaknesses of each data type being minimized by other sources of information. Document review is an important data source in this study, and it supported the triangulation of information gathered through observation and key informant interviews.
3.4.3 Key Informant Interviews

Finally, key informant interviews are one of the most important sources of case study information. Since most case studies are about human affairs and behavioral events, interview participants provide important insights and information (Yin, 2009, p. 108). Kvale (1996) describes the research interview as a conversation, its purpose to obtain descriptions of the life world of the interviewee in order to interpret the meaning of the described phenomenon (p. 6). Patton (1990) suggests that the purpose of interviewing is to bring the researcher into the participant’s world, with the interview tool allowing the researcher to see things from the participant’s perspective. (p. 278). The below table (Table 3.1) outlines twelve aspects of qualitative research interviews and the knowledge they provide.

<table>
<thead>
<tr>
<th>Aspects of qualitative research interviews</th>
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<tbody>
<tr>
<td><strong>Life world</strong></td>
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<tr>
<td><strong>Meaning</strong></td>
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<td><strong>Qualitative</strong></td>
</tr>
<tr>
<td><strong>Descriptive</strong></td>
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<tr>
<td><strong>Specificity</strong></td>
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<tr>
<td><strong>Deliberate naïveté</strong></td>
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<td><strong>Focused</strong></td>
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<tr>
<td><strong>Ambiguity</strong></td>
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<td><strong>Change</strong></td>
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<td><strong>Sensitivity</strong></td>
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This research employed an interview guide approach, using a prepared list of questions to be explored in the interview. This approach, known as the “semi-structured interview,” is employed when “the interviewer knows what he or she does not know and can therefore frame appropriate questions to find out” (Kvale, 1996, p. 269; emphasis original). Put another way, the interview guide approach had two main purposes. The first was to facilitate convergence and triangulation. The interview guide approach helps to make interviewing different people more systematic and comprehensive by asking multiple individuals the same questions and seeing where answers converge and diverge. The second purpose was to ensure that the conversation is centred on the research questions and issues by setting the agenda around the ideas to be explored in advance, keeping interviews focused and allowing for individual perspectives to emerge (Patton, 1990, p. 283). Following two initial interviews with key informants, the interview guide was refined through a review of transcripts with a colleague, with particular attention paid to the question style and flow of the overall interview. A semi-structured interview guide allowed for flexibility based on the participant and their background, and it allowed the interview to address emergent themes and ideas in the case studies.
There are a number of limitations to interviews. The first is that individuals can only share their perceptions and perspectives, which are subject to distortion due to personal bias. Interview information is also subject to recall error, the emotional state of the individual being interviewed, and their state of self-awareness; as Patton (1990) notes, responses during interviews can be “self-serving” (p. 245). As such, observations and documents provide a check on what is reported in interviews.

3.5 Sampling Strategy
The approach to sampling key informants was a mix of purposive, convenience and snowball sampling approaches. As the goal of the study was to explore and describe the intervention in detail, the sampling strategy was not about significance, but rather saturation and triangulation.

It was important to have varying perspectives not only from individuals involved directly with the intervention as providers, but from individuals involved in facilitating the intervention as decision-makers and managers. As such, the following types of individuals were invited to participate in the study:

- physicians involved in the interventions;
- allied health care providers involved in the interventions (e.g. nurses, pharmacists, social workers, personal support workers, etc.);
- managers involved in the intervention; and
- organizational leaders (e.g. program directors, CEOs, medical directors, etc.).

Shi (1997) suggests that when identifying informants, researchers should recognize informal group leaders who can provide critical assistance in identifying a mix of ideal informants through a “snowball strategy,” where the researcher relies on leaders to suggest additional key informants once trust and rapport has been established (p. 133).
Sampling for this study builds on Shi’s observations, using both purposive approaches, where requests are made to specific individuals (often group leaders) to be interviewed, and a snowball strategy, where individuals identified by the group leaders were asked to be interviewed. A convenience sampling approach was also used, where informants were selected because of their presence on the intervention team during the period of study. Some staff rotate in and out of these teams, and as such, only staff who were working during the period of study were interviewed. Typically, interview studies involved 10 to 15 informants, with interviews ongoing until saturation was reached and the interviews were yielding no new information (Kvale, 1996, p. 102).

3.6 Recruitment and Scheduling

Introduction to each site was facilitated by a physician lead, and prior to the first observation of team meetings, the researcher was introduced to the team. Documentation about the study, which included the research protocol and informed consent form were then distributed. Following a few weeks of observation that gave the researcher access and insight into the setting and intervention mechanisms, individuals were approached to set up interviews.

Following in person agreement to be interviewed, a follow-up email was used to arrange a time for one interview (lasting between 30 minutes and one hour). Almost all interviews were conducted in person; the one exception was a telephone interview for a key informant who was not located in Ontario. In many of the case study settings, front line providers (e.g. physicians and nurses) had access to shared office spaces that were used to

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10 See Appendix 1 for the Research Protocol and sample Letter of Consent
conduct interviews. Interviews were conducted in private, and if others entered the office space, the interview would pause and resume when they exited the space. For senior leadership, who generally do not participate in team meetings and would not have had an in-person introduction to the researcher, access was often facilitated by a physician lead or project manager via email; interviews were then arranged by email and took place in their private offices.\footnote{Please see Appendix 2 for a table with information on dates and location of key informant interviews.}

Key informant interviews were digitally recorded using an Olympus digital voice recorder; a USB key was used to transfer the audio files from the recorder to a computer as Windows Media Audio (.wma) files. An external transcription service, Qualcount, was used to transcribe all interviews into Microsoft Word documents. Qualcount is a medical transcription company based in the Haryana State, India, that serves the North American health care and medical market, and it has hospitals, physician practices and physicians as clients. Qualcount was selected because it has a number of practices and processes in place to ensure the confidentiality of the information being transcribed, such as the encryption of files sent through the internet and staff who are trained to comply with both the \textit{Personal Health Information and Protection Act} (2004) and the \textit{Health Insurance Portability and Accountability Act} (1996). The researcher then verified each transcript alongside the digital recording. This step was undertaken to ensure accuracy and fix errors found in transcription.
3.7 Data Management and Analysis

Yin (2009) describes the third and final stage in case study research as “analyse and conclude.” In keeping with Yin’s depiction of this stage, the following section details the so-called analytic moves used in the development of case study reports, as well as data analysis techniques and approach employed for this thesis. Following data gathering through interviews, observation and document review, an important stage in qualitative research is to “make sense” of the “voluminous” data generated during the qualitative research process which was undertaken with the assistant of qualitative analysis (Patton, 1990, p. 379). These approaches are described in the subsequent section.

3.7.1 Data Storage and Qualitative Analysis Software

Data in this study came in many different forms, including observational notes, documents from each case (which came in many forms, including files for Microsoft Word, Excel and PowerPoint), images, and paper materials (such as brochures and interview transcripts). Digital files were stored a desktop and a laptop (both password protected) that were owned by the researcher. Physical copies of consent forms were kept in a locked cabinet in the Institute of Health Policy, Management and Evaluation, University of Toronto; physical copies of documents from each site were in both a locked filing area in the researcher’s home and a locked cabinet in the Institute of Health Policy, Management and Evaluation. Digital data files—including observation notes, documents from the case sites and interview transcripts—were imported into NVivo10 software.

Initial phases of data analysis and organization focused on the transcripts and notes in Microsoft Word. I read and reread transcripts; and I also used manual coding, where codes and notes were made in the margins of transcripts and observation notes, and
sections of data were cut and pasted in coding tables organized according to category and theme. This was a useful first step for exploring the data, the digital equivalent of a red pen and highlighter used to feel and grasp the data. CMapTools Version 5.05.01, an open-source word map software was used to visualize the “story” and case report outlines; it also was used to manipulate information related to each case study and to develop a diagram to support cross-case analysis.12

Review of the initial codes by an external researcher suggested that Computer Assisted/Aided Qualitative Data Analysis Software (CAQDAS) would be helpful for organizing, searching and managing the data, as well as conducting more detailed coding. This advice echoes Saldana (2009), who describes CAQDAS as a “vital and indispensable tool” when research involves multiple participant interviews and extensive fieldwork (p. 22). The suggestion was welcome, and CAQDAS did indeed prove indispensable for sorting and organizing data during the writing and analysis phases of the thesis.

NVivo10 was used during the qualitative data analysis to develop the following:

- a coding structure using nodes and families of nodes to create themes and categories;
- text queries within case study documentation for information and emergent themes; and
- text searches with coding nodes for information and emergent themes.

While the CAQDAS approach does not code the data, the software does take on the task of efficiently storing, managing and reconfiguring data to enable human analytic reflection

12 Please see Appendix 3 for a word map sample that supported cross-case analysis.
For the purposes of storage, coding, manipulation and analysis of the significant volume of data associated with this thesis, NVivo10 was an effective tool.

3.7.2 Analytic Design and Techniques

Yin (2009) suggests four general strategies for analyzing case study evidence: (1) relying on theoretical propositions, (2) developing a case description, (3) using both qualitative and quantitative data, and (4) examining rival explanations. This research draws on the Yin’s first two strategies by developing rich, descriptive case studies and using research questions to focus attention on particular aspects of the data. Yin (2009) also notes that theoretical propositions stemming from questions of “how” and “why” can be useful in guiding case study analysis; as such, research questions were written and revised to reflect this (p. 130). This focus on questions of “how” and “why” is a bridge between case study methodology, grounded theory and realist evaluation, each of which are approaches to data analysis and evaluation that are drawn upon in this study.

Qualitative methods are oriented towards exploration, discovery and inductive logic. This study used approaches informed by grounded theory methodology, which focuses on grounding theories about what is happening in a setting directly in program experience, rather than what is imposed on the setting through hypotheses (Patton, 1990, p. 44). Constant comparison is a method within grounded theory, whereby data (e.g. actions and events observed, recorded or described in interviews) are compared, looking for similarities and differences; from this analysis, coded categories or concepts are produced. The researcher then compares indicators and concepts in order to sharpen categories and define properties, drawing relationships among concepts or sets of concepts (Shwandt, 2007, p. 131). Glaser and Strauss (1967) note that the beginning of developing
relationships between concepts or codes is through a description of the process, ensuring that theories "correspond closely to the 'real' world" (p. 42). Qualitative research is a dynamic, iterative practice, with analysis at every stage of the process. The below diagram (Figure 3.2) depicts how analysis is embedded throughout the process of study design, data gathering, coding and writing.

**Figure 3.2**

The inductive approach to the qualitative research process (Rozmovits, 2013)

![Diagram of the inductive approach to qualitative research process](image)

In light of these goals, the development of rich case studies—and the use of an inductive approach for in-case and cross-case analysis—was appropriate for drawing forth relationships between constructs emerging from “real world” patterns and relationships within (and between) the cases. The development of multiple case studies enabled the researcher to explore differences across cases. The inductive approach is a non-linear one, with ongoing reconsideration of codes and analysis throughout the writing of case reports and cross-case analysis.
Early approaches to analysis focused on drawing out a description of the case context and the process for implementing the intervention. This was aimed at developing an accurate description of observed phenomena in the cases; later, it assisted with drawing relationships between concepts. Early sorting of the data could be described as what Miles and Huberman (1994) have called “playing” with the data through different analytic manipulations, including:

- putting information into graphical form to demonstrate inter-relationships between concepts (p. 92);
- making a matrix of conceptually clustered categories and placing information within categories (p. 111);
- creating data displays (e.g. flow charts and other graphics) for examining the data (p. 79); and
- putting events in chronological order (or some other temporal scheme) to organize information (p. 121).

Glaser and Strauss (1967) outline four stages in the constant comparative method, but they do note that analysis is continuous and fluid, with simultaneous stages happening at once. The four stages are (1) comparing incidents applicable to each category, (2) integrating categories and their properties, (3) delimiting the theory, and (4) writing the theory (p. 105). The iterative approach is echoed in realist evaluation; Pawson and Tilley (1997) suggest that "the research act thus involves 'learning' the stakeholders theories, formalizing them, 'teaching' them back to the informant, who is then in a position to comment upon, clarify and further refine a set of key ideas" (p. 219). Themes were arranged within broad categories related to the integrated theoretical framework, which draws upon both Pawson’s description of social context (as well as Shekelle’s “high priority
contexts”) in order to provide some common so-called buckets through which themes could be understood and compared across cases.

While Saldana (2009) reminds qualitative researchers that coding is an “idiosyncratic enterprise” and that “the search for one perfect method of data analysis is fruitless” (p. 30), steps were taken to ensure that the approach to data analysis was rigorous. These included the maintenance of memos during the research process, and the ongoing process of creating memos while reviewing transcripts and coding. Two external reviewers also read the interview guide, early interview transcripts, and the approach to data analysis and coding during the research process.

3.8 Summary
The problem of the influence of context on care transition interventions can be addressed through the methods articulated in this chapter. A case study design is amenable to examining the role of context across multiple cases, and drawing out similarities and differences across these cases. This thesis relies on case study methodology to not only establish the case, but also approaches to analyzing the voluminous data gathered for each case. The research process, approach and tools used are described in detail in order to demonstrate the reliability and validity of qualitative research methods, and how the questions outlined in the first two chapters of this thesis will be addressed.
Chapter 4 Results – (Case Study Descriptions)

4.1 Introduction

This chapter presents three case studies that describe the intervention itself, the context in which it was implemented, and the implementation process. The case studies include in-depth analysis of the interaction between intervention components and organizational context. *Table 4.1* uses the taxonomy developed by Hansen et al. (2011) to illustrate the various intervention mechanisms —both shared and different— across all three cases. The organizations and cases have been given pseudonyms to maintain the anonymity of the organizations and individuals involved. Individual names, and other identifiers have been redacted. Please see Appendix 4 for a guide to the pseudonyms used for each case.
<table>
<thead>
<tr>
<th>Case</th>
<th>Organizations</th>
<th>Intervention components</th>
<th>PredischARGE intervention</th>
<th>Postdischarge intervention</th>
<th>Intervention bridging the transition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case A</td>
<td>Urban teaching hospitals and community health care provider organization</td>
<td>• patient education&lt;br&gt;• discharge planning&lt;br&gt;• appointment scheduled before discharge</td>
<td>• timely follow-up&lt;br&gt;• follow-up telephone call&lt;br&gt;• patient hotline&lt;br&gt;• home visit&lt;br&gt;• medication reconciliation</td>
<td>• transition coach&lt;br&gt;• patient-centred discharge instructions&lt;br&gt;• provider continuity</td>
<td></td>
</tr>
<tr>
<td>Case B</td>
<td>Community teaching hospital and primary care practice</td>
<td>• patient education&lt;br&gt;• discharge planning</td>
<td>• timely follow-up&lt;br&gt;• timely Primary Care Provider (PCP) communication&lt;br&gt;• follow-up telephone call&lt;br&gt;• medication reconciliation</td>
<td>• transition coach&lt;br&gt;• patient-centred discharge instructions&lt;br&gt;• provider continuity</td>
<td></td>
</tr>
<tr>
<td>Case C</td>
<td>Community hospital</td>
<td>• patient education&lt;br&gt;• discharge planning&lt;br&gt;• medication reconciliation</td>
<td>• follow-up telephone call</td>
<td>• patient-centred discharge instructions</td>
<td></td>
</tr>
</tbody>
</table>

*Table 4.1*

Case study intervention mechanisms (adapted from Hansen et al. 2011)

A rich understanding of the organizational context in which the interventions are embedded is an important component of realist evaluation. This can be accomplished through a case study, which attempts to describe a phenomenon in a comprehensive way so that the reader appreciates both the context within which the phenomenon being
studied is occurring and the phenomenon itself (Baxter & Jack, 2008, p. 555). This thesis makes use of case studies to that end. Their descriptions also reflect Patton’s (1990) suggestion that “the personality of the human, social environment will affect how program activities are perceived and experienced by participants” (p. 223).

Each case study begins with a clinical vignette, which is a description of a patient’s experience in the intervention. The vignettes are drawn from the researcher’s observations, interview and document review data to develop a composite experience of the “typical” patient, and they were reviewed by a physician lead of each intervention. The vignettes demonstrate the complexity of both the patients being seen in these interventions and the interventions themselves. The vignette also enables readers to develop a clear picture of the intervention, including the patients being targeted, the providers involved and their respective roles.

Yin (2009) suggests six approaches to composing a case study: (1) linear-analytic, (2) comparative, (3) chronological, (4) theory-building, (5) suspense, and (6) un-sequenced (p. 176). The linear-analytic structure is most amenable to this thesis, as it allows for a thorough description of the problem (Chapter 1), literature review (Chapters 1 and 2), methods used (Chapter 3), description and analysis of the individuals cases following a predictable order (Chapter 4), cross-case analysis (Chapter 5), and conclusions and implications from the case and cross-case analysis findings (Chapter 6).

Each case study in this chapter is both descriptive and analytical, with the descriptions presented first, followed by the analysis. The description and analysis sections touch upon the various attributes of context and their interplay with the intervention
throughout the implementation process. Each case study description section has four sub-sections: (1) context–program setting, (2) context–social environment, (3) intervention–description, and (4) implementation. Within this description also are linkages between the Ontario policy context and the organizational context. The policy context is shared across cases, but there are specific political forces and policy levers that influenced the organizations in each respective case study, and these are described in detail (when relevant) through the case descriptive and analysis sections. The description section also notes many of the attributes included in organizational structural characteristics, as well as the process of the introduction, adaptation and implementation of the intervention.

The analysis section is ordered according to the theoretical framework, with sections specifically addressing the attributes of organizational context of (1) teamwork and culture, (2) organizational structural characteristics, and (3) management tools. The role of external policy factors is woven into the case studies as appropriate and where specific policy inputs are influential. A discussion of the influence of external (policy) factors on the case study interventions will be drawn out in detail in the cross-case analysis in Chapter 5.
Case Study A

4.2 Data Collection Approach

Approval from the Research Ethics Board (REB) of Hospital 2 (one of the locations of the case study) was granted on January 20, 2011 and data collection commenced two weeks later, wrapping up in May 2011. The researcher observed 18 daily team meetings (known as “rounds”) during the months of February, March and April 2011. Each of these rounds, which occurred weekly, lasted approximately one hour. Interviews lasting between 30 minutes and one hour were conducted with twelve key informants, including senior leaders, administrators, physicians, nurses and other clinical staff. Documents reviewed included reports to the Ontario Ministry of Health and Long-Term Care (MOHLTC) and the Local Health Integration Network (LHIN), as well as presentations, research proposals, and governance materials (such as the Terms of Reference) for Intervention A.

4.3 Patient Vignette

Mr. Alpha is a 62-year-old male who lives on his own in a subsidized apartment close to downtown. Due to a workplace accident resulting in a brain injury, he has been living on disability for the past 22 years. Mr. Alpha is a daily smoker. He has depression, high blood pressure and chronic obstructive pulmonary disease (COPD). He takes multiple medications and has been seen at various emergency departments in the downtown core seven times over the past year. Most recently, he presented to the Hospital 2 emergency department with shortness of breath, and was admitted to receive treatment for pneumonia. He was ready for discharge after a six-day hospital stay.
On the day of discharge, he was visited by a research assistant, who told him about a study (Intervention A) being run out of Hospital 2 to provide ongoing case management following discharge. The research assistant gave him a pamphlet describing Intervention A and a phone number to call if he had any questions. Mr. Alpha consented to participate in the study.

The day that Mr. Alpha was discharged, he received a telephone call from the care coordinator and an intake assessment was done over the phone. The next day, the care coordinator presented Mr. Alpha’s case during the Intervention A daily patient rounds (which are attended by the care coordinator, attending physician, pharmacist, nurse practitioner and administrative assistant). A care plan was developed for Mr. Alpha, which included medication reconciliation by the pharmacist and follow-up with Mr. Alpha’s family physician about changes to his medications. As part of the care plan, Mr. Alpha was referred to an outpatient depression clinic, and the pharmacist changed his medications to blister packs to help with medication administration and compliance. Various members of the care team visited Mr. Alpha at home to counsel him on taking his medications and to provide counseling on smoking cessation and better management of his COPD.

Mr. Alpha received care for six weeks from Intervention A. Once he was settled into the new medication routine and his family physician had been updated on the changes, the care team believed that he was ready for discharge. A copy of the discharge summary was provided to Mr. Alpha and his family physician.
4.4 The Context: Program Setting

Intervention A was initially conceived of as a “shared care model across three distinct corporations and organizations” (M5)\textsuperscript{13}, a partnership between Hospital 1, Hospital 2 and the regional Community Care Access Centre 1 (CCAC) to support high-risk medical patients in the community after their discharge from hospital. Hospital 3 joined the partnership during the period of data collection, and Hospital 4 was in the process of joining at that time. The administrative and clinical aspects of Intervention A take place at Hospital 1, where rounds were observed and the majority of interviews were conducted. Two interviews were conducted in research offices at Hospital 2, one key informant interview took place at Hospital 3, and interviews with CCAC 1 administrators took place in their offices.

The four participating hospitals are all located within close proximity in an Ontario city centre, with Hospitals 1 and 2 taking a leadership role in Intervention A. Hospital 1 provides specialized care to a subpopulation of the city, and since its founding in the late 19th century, it has undergone significant organizational changes. This includes a merger, a de-merger, and an the ongoing process of rebranding from an inpatient hospital to one focused on ambulatory care.

Hospital 2 is also located in the centre of the city, and it was founded in the late 19th century as a small infirmary to serve the surrounding community of poor and indigent.

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\textsuperscript{13} The naming convention for sources in case studies is as follows: M means policy informant, with the number following M referring to the interview sequence as part of the study. The convention for case studies follows the same format, with key informants from Case Studies A, B & C labeled with these letters. Due to the nature of the sources, there are no page numbers, paragraphs or other indications of location in the interview.
Hospital 2 has grown into a large teaching hospital, with the compassionate basis for its founding remaining central to the organization's ethos.

CCACs are corporations responsible for administering contracted community health-service providers and facilitating admissions to long-term care. With the creation of LHINs—which are responsible for regional health-services planning and service providers—in 2004, Ontario’s 42 CCACs were merged to create 14 CCACs that aligned with LHIN regional borders (Mercer, 2008, p. 46). CCAC 1, which was involved in Intervention A, is responsible for providing services for 1.5 million residents of the city in which the intervention is located; its central administrative office take up the third floor of an office building about ten minutes (by foot) from Hospital 1. The offices are a warren of hallways leading to quiet administrative offices, cubicles and desks. When walking through the hallways, noise is at a minimum, with the primary sound being the quiet clicking of fingers typing on keyboards. Patient care happens in the community, where it is contracted out to provider groups and staff who are mobile and visit patients (known as “clients” in the vernacular of CCAC 1) to provide care and services.

Staff from all three organizations participated in the intervention. Hospital 1, however, was the home of the intervention, and it was the location of the daily rounds, administration offices, and patient clinics for Case A.

The main entrance of Hospital 1 has a large banner, roughly one story tall, that states “2015: HELP US BUILD THE HOSPITAL OF THE FUTURE” in large, fluorescent text. The entrance opens into a small lobby anchored by a Tim Hortons café, a nearly deserted cafeteria, and a gift shop with hand-knit items in the window. The gift shop is usually
closed. The lobby fans out into various hallways, and to access the Intervention A offices in the Eastern wing of the hospital, one takes a large, stainless steel interior elevator up to the sixth floor.

The Intervention A offices are in an older wing of the hospital that has well-worn, speckled shiny concrete floors, small windows and wide hallways to accommodate what was once an inpatient ward. The offices are located in a rectangular hallway encircling a central area that is now occupied by one administrative assistant. The rectangular-shaped space reflects classic hospital interiors of patient rooms that wrap around a central nursing station. However, there are no patients in the rooms, which have all been repurposed into administrative office space, clinical offices and meeting rooms.

The room where Intervention A rounds take place each weekday morning still bears the markings of a clinical space. It is a rectangular room that once held four hospital beds, and it is currently set up with desks pushed against the back walls and a large boardroom table in the middle, surrounded by chairs. The ceiling still has the runners that were once used for hanging drapes to create private patient spaces, and on both walls there are two large panels of plugs that once accommodated the monitors and clinical equipment necessary at a patient’s bedside. However, in the space’s current incarnation, these panels are used to charge laptop computers and smart phones.
4.5 The Context: Social Environment

4.5.1 The Intervention A Team

The Intervention A clinical team is drawn from CCAC 1, Hospital 1, Hospital 2 and Hospital 3 staff. It includes two full-time case managers, a full-time administrative assistant, a pharmacist and a nurse practitioner (NP), all of whom dedicate 40% of their time to Intervention A. Physicians drawn from Hospital 1, Hospital 2 and Hospital 3 rotate on and off the team, working for three weeks blocks of time. Hospital 1 also has a nurse who works part-time on Intervention A, and there are other staff who periodically join rounds, including a case manager from a community addiction agency located in the city.

Staff recruitment was carried out by managers at the respective organizations. In particular, CCAC 1 staff were selected by management. The CCAC 1 staff who comprise the core Intervention A team were described as being “hand-picked,” with a focus on selecting “good people, who would be a good fit for the type of collaborative culture that we really needed ... a certain personality type that can work with a nebulous sort of environment, one where they are actually not rigid” (A5). However, there was some sensitivity from management about the perception that the CCAC 1 staff selected to work on Intervention A were considered “the best and the brightest”; as one key informant stated, “we did not certainly pick the top employees and pluck them, but we picked those who we thought had an expertise with that population and work well in an interprofessional team” (M5).

All clinical and administrative staff, with the exception of the physicians, are paid by salaries negotiated with their employer, some of which are paid for with funds from the regional LHIN. Physicians are paid a flat fee $1000 for each day they participate in Intervention A, with this payment directly from earmarked MOHLTC funds.
Intervention A was developed as a research endeavor. It is based at academic, teaching hospitals and led by physicians who have academic affiliations. A central feature of Intervention A is that it is a Randomized Controlled Trial (RCT) study. The research arm of Intervention A is based at Hospital 2, funded by the Canadian Institutes of Health Research (CIHR), the Academic Health Sciences Centre (AHSC) Alternate Funding Plan Innovations Fund, the MOHLTC and the Department of Medicine of a local university. Table 4.2 outlines the various staff roles on the team, their home organizations and the funding sources.

<table>
<thead>
<tr>
<th>Role (and number of positions)</th>
<th>Organization</th>
<th>Salary/stipend source</th>
<th>Time spent on Intervention A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmacist</td>
<td>CCAC</td>
<td>LHIN</td>
<td>40%</td>
</tr>
<tr>
<td>Nurse practitioner</td>
<td>CCAC</td>
<td>LHIN</td>
<td>40%</td>
</tr>
<tr>
<td>Case manager (2)</td>
<td>CCAC</td>
<td>LHIN</td>
<td>Full-time</td>
</tr>
<tr>
<td>Nurse</td>
<td>Hospital 1</td>
<td>Hospital 1</td>
<td></td>
</tr>
<tr>
<td>Physician</td>
<td>Hospital 1, Hospital 2, and Hospital 3</td>
<td>MOHLTC</td>
<td>Three-week rotation; 24/7 telephone availability</td>
</tr>
<tr>
<td>Project manager</td>
<td>Hospital 2</td>
<td>CIHR/University Department of Medicine</td>
<td>Full-time</td>
</tr>
<tr>
<td>Medical director</td>
<td>Hospital 1</td>
<td>MOHLTC</td>
<td>20%</td>
</tr>
<tr>
<td>Medical informatics lead</td>
<td>Hospital 2</td>
<td>MOHLTC</td>
<td>N/A</td>
</tr>
<tr>
<td>Administrative assistant</td>
<td>CCAC</td>
<td>LHIN</td>
<td>Full-time</td>
</tr>
</tbody>
</table>

*Table 4.2*
Staff roles for Intervention A

The physicians who attend on Intervention A are mostly general medical internists practicing at AHSC. These physicians are generally paid through an Academic Funding Plan using contracts that are set between teaching hospitals, the Ontario Medical Association (OMA) and the MOHLTC. These contracts remunerate physicians for the range of services they provide, including clinical service, teaching, research and administration, paying them in a variety of ways, including a mix of base payment and fee for service.

The utilization of physician internists reflects the background of the project leads, as well as the initial funding source for Intervention A. The University Department of Medicine, which oversees the core internal medicine, medical specialties and subspecialties at the university teaching hospitals and medical school, awarded Intervention A its first grant of $75,000. This first grant was described as the “seed” (M4, A12, M8) for Intervention A. Key informants suggested that general internal medicine specialists were used due to their accessibility and the convenience of scheduling them into the intervention for three-week periods. Key informants reflected upon the appropriateness of general internists in this role:

A lot of physicians have other responsibilities, [so] the reason we picked three weeks [for the duration of their time working with the team] is that is how they do their teaching stints [at] the inpatient teaching at Hospital 2, where quite a few of the physicians come [from]. (A7)

But I think ... in order to get doctors to rotate through ... this is Dr. [NAME REDACTED]'s community. It is a lot easier for Dr. [NAME REDACTED] to get doctors to rotate through. In the end, it actually could be family doctors. In England, it is actually family doctors, so here it is just purely for project implementation, I think. (A2)
4.5.2 The Daily Team Meeting: Rounds

Rounds are a time when the interprofessional intervention team meets and provides updates and discusses patient issues. The staff gather around the central table; there often is an overflow of people in the room—with frequent external observers, students and others in attendance, and too few seats at the table—so some sit along the back wall. At the front of the room is a large whiteboard mounted on four casters. This is wheeled from a locked office space on the floor to the meeting room for daily rounds. The whiteboard had a grid with spaces for patient information (shown in Figure 4.1).

Figure 4.1

Intervention A Whiteboard, from Intervention A Rounds Observations.

<table>
<thead>
<tr>
<th></th>
<th>name</th>
<th>name</th>
<th>name</th>
<th>name</th>
</tr>
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<tbody>
<tr>
<td>Next round date</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diagnosis</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date of admit</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LACE score</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Issues for follow up:
- care coordinator
- MD
- RN (Hospital1)
- RN (CCAC)
- Pharm
- Community Addictions Team
- Misc.

Home Visit

Anticipated discharge date
During the majority of rounds observed by the researcher, an administrative assistant would stand next to the whiteboard and keep notes of the discussions taking place in neat block letters using a dry-erase marker. Also wheeled in for rounds is a trolley that holds stacks of maroon binders with thick spines; these contain paper copies of documentation about Intervention A patients. One key informant described the white board as a “dying art,” saying “everyone is just sort of keeping their own notes, their own tracking of what is going on and what they need to do” (A3). This appears to be true: during rounds, there were a number of different forms of record keeping happening, with the physicians writing notes and reviewing documentation in the maroon binders, CCAC staff using laptops to access the electronic charting system, and the administrative assistant tracking key dates and information for all to see on the whiteboard.

Intervention A rounds were modeled on interdisciplinary rounds that take place daily on the inpatient medical ward at Hospital 2, where the physician project lead and many other physicians attending on Intervention A practice or were trained. This rounds format is led by the case manager, with physicians, nurses and other clinical staff providing input specific to their involvement with a particular patient. As a physician informant opined, “I think that works very well because generally the case manager sees the whole picture, and also the physicians come and go both on our inpatient ward, and even more so on the intervention, relative because of our length of stay” (A8).

4.6 Description of Intervention A

4.6.1 Adaptation from the UK Intervention

Intervention A is an adaptation of an intervention to reduce rehospitalization that was developed at a primary care trust (PCT) in an urban area of the United Kingdom. This
primary-care-led intervention was developed by a physician and two nurse consultants, and started in 2004. The UK intervention has been described as providing “multidisciplinary case management services to people who have been identified, using a predictive model, as high risks for future emergency hospitalization” (Lewis, 2010, p. 2). The day-to-day clinical work of the UK Intervention is led by a case manager, known as a “community matron,” usually a senior nurse who has received additional training for this role. The case manager leverages the staff at the PCT to provide services and support for these high-needs patients. The composition of the multidisciplinary team includes nurses, a ward clerk, pharmacists, social workers, physiotherapists, occupational therapists and mental health professionals (Lewis, Bardsley, Vainthiananthan, Georghiou, Billings & Dixon, 2011, p. 3).

The concept of the UK Intervention was that patients would have all the features of care on an inpatient hospital ward—the systems, staffing, and daily routine—in place to deliver preventive care to them in their own homes. This was done in an attempt to maintain patient health at home and reduce costly emergency department visits and hospital admissions. A key feature of the UK intervention was the use of a predictive modeling tool to forecast patients at highest risk of readmission (and as such most likely to benefit from such an intervention). These models, known as the Patients at Risk of Rehospitalization tool (PARR) and the Combined Predictive Model, identify target patients by searching primary care data sources and alerting primary care providers about which patients are at a high risk of an unplanned hospital admission (Lewis et al., 2011, p. 3).

The UK Intervention is aimed at the challenges associated with caring for high-risk patients across a complex web of providers. It is linked to a number of general practices
within a specified region, and is coordinated by a central administrator, with medical input coming from physicians across primary care practices. As Lewis et al. (2011) explain:

There are several reasons why integrated, multidisciplinary preventive care might be beneficial to high-risk patients. Such patients are typically older people with multiple chronic conditions and complex health and social needs. Often, therefore, they receive care from many different professionals. This can lead to problems of duplication (where several professionals deliver the same care) and equally, of gaps in care (where no professional delivers a particular element of care, perhaps because they wrongly assume that it is being delivered or secured by another professional). These patients might therefore benefit from the improved communication and coordination delivered by [the UK Intervention]. (p. 2)

The concept of the UK Intervention was brought to Ontario by a general internal medicine physician who read about the intervention during a period of study in the United Kingdom. In particular, the application of a hospital ward configuration to outpatient care in order to manage complex patients resonated with this individual:

This idea of, of a team ... taking the best elements of hospital care and applying them in the outpatient setting, that was very appealing to me because I felt like, you know, having spent a little while in the UK and having some time in Canada ... my sense of the health care system here was that what we were doing in hospital was working well and what we were doing in the outpatient setting was working less well. I think if you practice inpatient medicine, you certainly see a lot of patients who come in and out of hospital, and so you think to yourself: well what could we be doing to prevent these patients from coming back? If you ask yourself that question and also believe that we are providing very good hospital care, well then the answer as to where the gap lies is sort of obvious. (A8)

The adaptation of the UK intervention to Intervention A shifted the focus from primary, community-based care to acute care, with an emphasis on access to hospital physicians. Rather than having a team available from within a PCT, however, as is the case in the UK, Intervention A built a team through the initial partnership of three organizations: Hospital 2 was initially the source of patients and physicians, Hospital 1 was the space for the Intervention A team and clinics, and CCAC 1 provided staff with experience in community-based care of complex individuals.
A leading individual in the development of Intervention A described how the model is adaptable to different health systems, health care practices or contexts:

The specifics about the intervention are always going to be dependent on the local context ... like their people running the [UK intervention] ... are called “community matrons.” We do not have community matrons. So seeing what a community matron does and what kind of training they have ... it is not really that relevant. I think you have to develop your [intervention] locally. (A8)

Descriptions of Intervention A suggest it “borrows the best elements of hospital care—a shared set of notes, an interdisciplinary team, round-the-clock physician availability and a single point of contact” (Intervention A Report to LHIN, 2011, p. 1).

4.6.2 The Intervention A Process

Intervention A borrowed and adapted the concept of predictive modeling for hospital readmission from the UK Intervention, and the development of a risk prediction model for hospital readmission using available data in the Canadian context dovetailed with the development of the intervention. The LACE index, an aggregate of clinically-available data, was used to quantify risk of death or unplanned readmission within 30 days of hospital discharge based upon on Length of Hospital Stay, Acuity at admission, Co-morbidities (such as chronic obstructive pulmonary disease (COPD) and diabetes), and Emergency department admissions in the previous six months (van Walraven et al., 2010, p. 551).

The LACE index was applied to patients being discharged from general internal medicine inpatient wards at Hospital 2 and Hospital 3. Given that Intervention A was developed as a RCT, patients who had high LACE index scores were visited by a research assistant prior to discharge and asked whether they would like to participate in Intervention A, either to be randomized to “usual care” (meaning regular care following
hospital discharge) or “admission” to Intervention A (meaning care coordination by the Intervention A team for a period of time following discharge).

The stated main objectives of this RCT were to evaluate whether Intervention A reduces:

- hospital readmission within 30 days, 90 days, six months and one year of discharge;
- death within 30 days, 90 days, six months and one year of discharge;
- emergency department visits within 30 days, 90 days, six months and one year of discharge; and
- long-term care admission within 30 days, 90 days, six months and one year of discharge (Research Proposal, A [Intervention A] to Reduce Readmissions after Hospital Discharge, 2009,p.1).

In order to detect a relative risk reduction in readmissions, it was estimated that 755 patients would be required in the control and intervention study groups, with 1510 participants overall. Intervention A admitted the first patient in March of 2010, and it was estimated that the intervention would need to run for approximately 24 months (until the summer months of 2013) to achieve the necessary study sample size (Research Proposal, A [Intervention A] to Reduce Readmissions after Hospital Discharge, 2009, p. 8). Data collection for this thesis took place from February to May 2011, approximately one year after Intervention A began admitting patients.

*Figure 4.2* was developed by Intervention A leadership and used in proposals to funders (e.g. CIHR and MOHLTC) to depict patient flow through the intervention.
Figure 4.2

Patient Flow Through Intervention A (Adapted from Research Proposal: [Intervention A] to Reduce Readmissions after Hospital Discharge, 2009, p. 6).

Proposal materials for Intervention A note that it incorporates all five characteristics of successful approaches to reducing readmissions, as recommended by the Institute for Healthcare Improvement, including (1) comprehensive discharge planning with timely communication, (2) postdischarge support, (3) multidisciplinary team-based management,

While there are a number of similar care transition interventions that contain these attributes, Intervention A has additional dimensions, such as the use of the predictive model for readmission risk and a strong physician role in the intervention (including around-the-clock physician access). Moreover, Intervention A is being rigorously evaluated through a RCT, justified both by the need to provide decision-makers with evidence to support decision-making and by the lack of rigorous evaluation for the UK Intervention, which had anecdotal reports of success but has never been rigorously evaluated (Research Proposal: A [Intervention A] to Reduce Readmissions after Hospital Discharge, 2009, p. 2).

4.7 Implementing Intervention A

4.7.1 Developing the Model and Partnerships

The implementation of Intervention A looked very different than its initial conceptualization. Following the development of the risk prediction tool, the physician lead began a process of sharing the concept behind Intervention A, alternatively described as “pitching” (A8) or “shopping around” (M5) by interview subjects:

I started at [Hospital 2], and I think a lot of people thought the idea was interesting, but it was not clear who would pay for it or where the intervention would be housed ... initially, I think I conceived [of] the idea as being primarily hospital-based staff going out into the community. (A8)

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14 See Chapter 1, Figure 1.2 for a discussion of the attributes of care transition interventions.
During this period of time, the physician lead shared the idea for Intervention A with various potential partner organizations and funders beyond Hospital 2, in part because of criteria for the University Department of Medicine grant it received, which lists collaboration between organizations and across departments of medicine as a requirement.

The first organization to partner with the physician lead on the concept of Intervention A was Hospital 1, following conversations between the physician lead and the Vice President, Research and Physician-in-Chief. One key informant described the Department of Medicine grant as intended to fund projects:

Something innovative and important, consistent with their strategic goals ... the requirement is that it is a high priority for the division, that it is multi-institutional—more than two—and that it has the potential to leverage greater impact or funding. (M4)

Key informants also described how Intervention A’s model of care aligned with the new mandate of Hospital 1 to develop innovative models of ambulatory care:

In our Department of Medicine, anyhow, the priority is exactly the kind of new model of care that the intervention is an example. So trying to keep people with complex chronic disease out of hospital is our mandate. (A12)

I guess [Hospital 1] as an institution has been in a bit of flux—like I do not know if you know whole history. [Researcher : Yes] Yes, so I think we are kind of struggling with, you know, what we should be doing. We were to assign this designation as Ambulatory Care Centre, but we have never really did that in the past, so I think ... we should have a lot of ambulatory care, but you remember that we have lots of inpatient care as well, so now obstetrics has gone, which was our big program. So I think it is really to sort of create some innovative models of care here and stand out as an ambulatory care centre. So I think when [NAME REDACTED]—who had developed this idea and presented it—[NAME REDACTED] was very, very interested and thought it would go along with our vision in ambulatory care and new innovative models. (A7)

With Hospital 1 as a partner, a CCAC decision-maker describes being set up on “kind of a collegial, you know, speed date” (M5) with the physician lead, and following conversations, a decision to collaborate on Intervention A was made by senior leaders.
Intervention A’s approach resonated with decision-makers at CCAC 1, who were in the process of reforming its model of care with a focus on deploying staff by population-focused expertise rather than geography. Central to this strategy was the emphasis on maintaining individuals in the community and improving transitions of care for high-risk patients (M5). In addition to the intervention dovetailing with CCAC 1 strategy and a focus on transitions, there was a sense that funders would be more amenable to a partnership with community organizations, with a key informant suggesting that “I think we started to realize that the LHIN and the Ministry [of Health and Long-Term Care] weren’t really keen to provide more money to hospitals, and so that was another reason to run it through the CCAC, as half of the staff work for the CCAC” (A8).

Key informants described how staffing configurations were developed through leadership meetings between Hospital 1, Hospital 2, CCAC 1, and later Hospital 3 leads. This configuration for Intervention was a team of primarily CCAC staff, based at Hospital 1, caring for Hospital 2 and Hospital 3 discharged patients with physician staff from the three hospitals. One policy informant described this period—and the process of cultivating partner organization—as one where the physician lead “made it; everybody feels that they are winning with this project, everybody feels it is theirs, and that is a real art” (M8). This period of cultivating relationships, developing a collaboration and initiating Intervention A was relatively brief, as the LHIN committed to fund the intervention in early 2010 but required that the project operationalize before the end of the fiscal year (which was March 31, 2010). The rapid operationalization of Intervention A influenced the way in which it was rolled out; given time pressures, it was decided to “operationalize at one place
[Hospital 2] first, sort of work out the kinks, and then get the next site on [the Intervention]” (A5).

4.7.2 Physician Funding—A Stop Gap Measure

An important part of implementation was securing funding for physicians. As described earlier in this case study (see The Context: Social Environment), physicians participated in Intervention A for a block of time—initially two weeks, and later three weeks—wherein they were required to be available by telephone 24 hours a day, seven days a week. They also were required to attend daily patient rounds during weekday mornings, provide patient care during intervention clinic hours and work with the interdisciplinary team to manage patient needs.

When Intervention A enrolled its first patient in February 2010, physician funding was not yet secured, and the practice plans for general internal medicine physicians at Hospital 1 and Hospital 2 had agreed to support Intervention A physicians for a few months. However, there was a consensus that “the only folks who have the money to pay for the physicians [are] the Ministry [of Health and Long-Term Care]” (A8), and that if physician funding was not secured, Intervention A would require significant changes. One key informant suggested that had physician funding not been secured, there would have been the possibility of cancelling Intervention A, or at least shifting towards a different model of care “with the physician in a much smaller role” (A8).

Ultimately, the MOHLTC agreed to provide Intervention A with $400,000 per year, enough to fund the daily rate of attending physicians and two physician part-time administrative positions (the Medical Director and a Medical Informatics Lead) (First
Interim Report – Intervention A, submitted to MOHLTC, November 2010, p.2). MOHLTC physician funding was described by key informants as a “one-time basis” (M1), “short-term” (M6) and “expensive” (A12). Informants suggested that this approach was not sustainable beyond the Intervention A pilot: “I do not think that the Ministry [of Health and Long-Term Care] is going to want to pay physicians in this way in perpetuity” (A8). The costs associated with the physician role figured prominently in concerns about sustainability. One informant noted that “in the current culture, the physician funding is needed because you have to compete [with] the inpatient unit, but I think it is overfunded. I think it is too much money, and I am not fully certain that the physician role is needed that much” (M4). Nevertheless, securing physician funding was also described as a major lever in the success of Intervention A: “It would not have happened without the Ministry’s [of Health and Long-Term Care] money for the docs—that was critical” (M4).

4.8 Case Study Analysis

The analysis section for this case study is ordered according to the theoretical framework of this thesis, with sections specifically addressing the attributes of organizational context of (1) teamwork and culture, (2) organizational structural characteristics, and (3) management tools. Analysis in this section was iterative, and various analytic approaches were used to demonstrate relationships between context and intervention mechanisms. One approach was a concept map that connected the various features of context to tell the story (as it were) of the intervention context and mechanisms.15

15 Please see Appendix 3 for a sample word map.
4.9 Teamwork and Culture

4.9.1 Physician Leadership

Intervention A is a complex intervention by design, and it was developed by bringing together a team with diverse backgrounds, from many different organizational contexts. This added additional layers of complexity to the intervention. According to key informants, leadership played an integral role in the establishment of Intervention A. Physician leadership, in particular, was described a major facilitator of the intervention, both in terms of championing the idea of the intervention to stakeholders (such as partner organizations and funders), and in providing leadership to the intervention team. Key informants suggested that what credibility and support the intervention garnered was due to physician leadership:

To be honest with you, the only structure that really facilitated the whole establishment and functioning of this project [Intervention A] was leadership. So, having leaders like [NAME REDACTED] and [NAME REDACTED] who really can smooth things over with all the organizations is probably the biggest thing; we need a dynamic set of leaders who everybody likes and everybody is willing to work with them ... [and] want to work with them. (A2)

I think it was a lot of the right idea, at the right time, at the right place. I think people did like the fact that it was coming from a clinician as opposed to an administrative manager-type hospital person. (A8)

Key informants contrasted the role of physician leadership in Intervention A to prior quality improvement collaboratives and initiatives that have been led by the MOHLTC or LHINs. These quality improvement collaboratives were described as “top-down” initiatives by political or bureaucratic decision makers that did not garner much buy-in from frontline clinicians. Physician leadership, on the other hand, was seen as motivating “bottom-up” initiatives that were inspired by clinical practice:
We know that top-down [initiatives] for improvement efforts [do] not really have the same kind of attraction and buy-in [as] things that are led locally by champions, by communities of practice, by clinicians, etc. So I think the more we can encourage physician leadership and engagement on these kinds of initiatives, the better chance we have of improving care. (M3)

The motivations of a physician to lead a quality improvement collaborative are seen as being drawn from clinical experiences and “frustration at the front line, every single day in their practice” (M1). Key informants describe a perception of legitimacy from physician-led, “grass-roots kinds of initiatives,” where the physician is motivated to lead quality improvement initiatives out of “the desire to actually improve care for these patients” (M3).

Physicians are not only viewed as credible leaders in quality improvement by decision-makers and funders, but they are seen as important in motivating clinical colleagues—both physicians and other health care providers—to participate in quality improvement interventions:

They [physicians] can be huge barriers, or they can be the biggest supporters—because when you are talking about change management and quality improvement, physicians are ... key players in that.

... We need a physician champion because much of the innovative change we want to make is going to challenge physician practices, or physician beliefs, or thoughts, or require a physician champion so that everybody else can buy in. (M6)

Physician leadership around care transitions in particular was highlighted as an important cultural shift. Whereas physicians are traditionally concerned with medical issues, a focus on transitions of care brought attention to non-medical social issues, which are often perceived as being outside of hospital or acute care. This shift is described in greater depth in the next section.
4.9.2  Clash between Acute and Community Care Sectors

Key informants described Intervention A as being an example of a cultural shift in medicine, whereby aspects of health care (such as community-based care and complex chronic disease management) are achieving more prominence and focus. Hospital culture and norms are described as being set at the executive level and reinforced through behaviors, attitudes and interests of clinical staff and students at Intervention A partner organizations. The quotation below illustrates one key informant’s perspective on the types of care that are privileged within the acute care teaching hospital culture in which Intervention A is nested:

There is a cultural change that is happening right now ... at the end of the day, there is no one learned person in health care [who] does not know that the complex chronic disease patient is the problem within health care. Everyone knows that, but the reality is that for donors—we just raised ... $75 million for the [Hospital 3] Cardiac Centre, for you know, transplant for oncology for cancer, the hospital—the prestige is still in super-specialized treatment, and [chronic disease management] is just still seen as dirty and not valued, but actually this is where you need investment. And so a lot of organizations stay out of it because their CEO culturally has been trained to recognize that ... [a] 65-slice gamma knife machine that costs like $20 million is what people would pay for and [that it] gives prestige. (M8)

Chronic disease management, care coordination and the case management of patients living in the community are described as being beyond their sphere of expertise or interest for internists in particular, because of the more social, non-medical dimensions of these problems. The urgency and demands of inpatient medicine practiced by teaching hospital internist staff who attend on Intervention A is contrasted with the more time-consuming, non-medical work of discharge planning and care coordination:

There is a lot of excitement when you are admitted, and then, you know, the acute thing is resolved and all that other staff... there is less excitement or whatever on the part of residents and ... little things might not get followed up on as much as you know what have you—they are not urgent things, so they just kind of deferred. It’s no one’s fault, but they [hospital physicians] are on to the next. (A9)
Informants describe a major disconnect between hospital and community-based care. This aligns with Lilly’s (2008) description of a “medical–social tension” in Canadian health care, whereby hospital-based medical care is disproportionately valued and publicly funded at the direct expense of home-based social care with implications for access to services and providers. (p. 290). Lilly (2008) describes how socio-political forces over the past half-century underlie a system wherein hospitals and medical care are privileged over homes and social care. Figure 4.3 depicts the juxtaposition of medical and social care, based on place.

Figure 4.3
Public–private responsibility and the medical–social continuum of health care (adapted from Lilly, 2008, p. 292)

The gap between hospital and community was not explicitly articulated by key informants, but rather it was alluded to at the more subtle levels of beliefs and assumptions
about the relative worth of inpatient, hospital care vis-à-vis community-based care. These comments were heard both from community and hospital key informants, suggesting that hospital-based providers neither understand nor appreciate the challenges of the community context: “There is still a big disconnect, I think, in knowledge and understanding between hospital and community—and hospital not really understanding what happens in the community when people walk out of hospital” (A3).

The requirement of Intervention A physicians to offer home visits to patients was a touchstone for key informants, revealing the dichotomy between hospital and community, and revealing assumptions of the social-medical tension:

You can see some [physicians] are more comfortable doing community stuff like going to icky homes. (A4)

What struck me was the physicians who attend on [Intervention A] really did seem that their eyes were open for the first time, it seemed to me, to the dynamics of the primary care side. What was really striking was [NAME REDACTED] saying “I cannot believe it, that people do not do home visits.” He knows that already, is it not bizarre? What struck me about it that was maybe the team is kind of hermetic, like it has been sealed inside the academic hospital environment and [was] not aware of outside the hospital dynamics. (M1)

As such, Intervention A is noted by informants as being innovative and novel for attempting to break down these cultural barriers by bringing together hospital-based physicians and providers to work with an interdisciplinary team to manage complex patients in the community:

Having a doctor who is hospital-based who is willing to talk to and spend time with somebody who is talking about somebody’s housing—it is a huge thing. You know, that is a doctor being proactive about holistic care plan. It is not just that they need to follow up with a respirologist and their lung function is 30%. It is like, who cares about that stuff, they have no place to live. (A2)
4.10 Organizational Structural Characteristics

4.10.1 Alignment with Organizational Strategies

The goals of Intervention A align well with funders and organizational partners; that alignment was highlighted by key informants as being essential to securing funding and establishing partnerships. In the context of Ontario, the MOHLTC and LHIN identified strategic priorities that require cooperation and coordination across organizations. This was explicitly highlighted in Intervention A materials that attempted to make the case for funders to support the intervention because of its alignment to stated strategic priorities and values. Table 4.3 is from a February 2011 LHIN Report, which makes explicit alignment between Intervention A and the strategies and values of both the MOHLTC and the LHIN.

<table>
<thead>
<tr>
<th>MOHLTC and LHIN focus</th>
<th>[Intervention A] aims to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED/ALC wait time strategy</td>
<td>• reduce readmissions after hospital discharge;</td>
</tr>
<tr>
<td></td>
<td>• reduce ED wait times by reducing ED visits;</td>
</tr>
<tr>
<td></td>
<td>• improve the ALC situation by reducing readmission to hospital;</td>
</tr>
<tr>
<td>Aging at home strategy</td>
<td>• enhance home care;</td>
</tr>
<tr>
<td></td>
<td>• support high-risk seniors living in the community;</td>
</tr>
<tr>
<td>Chronic disease management</td>
<td>• assist patients with self-managing one or more chronic diseases; and</td>
</tr>
<tr>
<td>Access to family health care for all</td>
<td>• connect high-risk patients to a family doctor</td>
</tr>
<tr>
<td></td>
<td>• improves care transitions</td>
</tr>
</tbody>
</table>

*Table 4.3*
Intervention A alignment with LHIN and MOHLTC priorities (taken from The LHIN [Intervention A] Report, submitted to LHIN, February 2011, p.2)

The collaboration to develop Intervention A was also fostered by its alignment to the organizational priorities and strategic plans of partner organizations. In particular, key informants suggested that the organizational transformation taking place at Hospital 1—which focused on developing innovative outpatient models of care and excellence in ambulatory care—provided strong alignment with Intervention A. Key informants suggested that this strategic alignment motivated the organizations (which had a history of competition) to collaborate and contribute staff and resources towards the intervention:

Well, my understanding is that because [Hospital 1] was kind of transitioning ... being all ambulatory and kind of focusing on being interdisciplinary, there was kind of space and manpower and things like that to support it, and maybe a bit more of an interest in trying to develop these programs here. (A9)

So we [CCAC] have three strategic aims. We call them strategic aims. The first one is transforming the experience of clients and caregivers. The second one is getting people and keeping people home, and the third one is investing is our capacity to do quality improvement. So those are the three and it [Intervention A] really aligns with all three. (M5)

4.10.2 History of Competitive Inter-relationships

Historically, the teaching hospitals in this urban centre have been described as working in isolation in a “silo mentality,” with a great deal of competition between institutions (A7, A12). This was characterized by one key informant as “direct competition for reputation” (M4) between teaching hospitals that are trying to capitalize on international reputations to recruit the best staff, develop clinical innovations, win competitive grants for research dollars and vie for scarce donor dollars. As such, the Intervention A collaboration is embedded in that history of competition. One key informant suggested that this collaboration came about under the leadership of a new generation of physicians and
senior leaders who “did not own the history ... they saw all the opportunities and did not really know why we do not work together” (M4).

The context of historical competition was suggested by key informants as making the Intervention A collaboration even more novel, with one key informant characterizing the collaborative nature of the intervention as a “success story, even if it does not reduce readmissions” (A12). Leadership was suggested as a lever in establishing a partnership, and it was noted that the decision to collaborate was made “almost over a handshake,” with little organizational formality, and it exhibited a great degree of interpersonal trust: “We do not have a complicated memorandum of understanding ... there is a lot of focus on intent and good will of what we are trying to do versus all the details, and I think that was very useful in terms of having the right people shepherd that through” (M5).

Another lever to collaboration was the initial Department of Medicine grant, which had collaboration as a program requirement. In an environment still characterized by competition and organizations seeking to maximize their own self-interest, this was an important lever, where collaborating offered rewards to each organization:

I think ... there is still probably some competition, too, but I think people collaborate where they feel that it is good for ... I think what has changed is that there are potentially rewards for collaborating, right? So [NAME REDACTED] set up these grants which you can only apply for if you are proposing to collaborate. (A8)

4.10.3 Information Sharing between Organizations
The development of the Intervention A collaboration was attributed to relationships between organizational leadership, however many of the tools needed for clinical staff to collaborate effectively on patient care between organizations were absent. Intervention A
materials describe the intervention as borrowing “the best elements of hospital care—a shared set of notes, an interdisciplinary team, round-the-clock physician availability and a single point of contact” (LHIN [Intervention A] Report, February 2011, p. 1; emphasis original). While one of the roles of the administrative coordinator was to make a copy of all Intervention A patient notes for each patient’s binder (physically located at Hospital 1), this binder was not used by the full interprofessional team. When the team met, various professionals relied on information systems and applications from their home organizations for patient care documentation and notes. One key informant described the various information technology applications used amongst the team as follows:

There are too many computer-based programs and systems that are being used that do not mesh together in one super system that can be used. So the CCAC people also document in our CCAC electronic charting system. Then we have a paper chart here at [Hospital 1] for all our [Intervention A] clients. There is Saurian to access [Hospital 2] client data, the information which not all of us have access to. There is Pro—one of the programs at [Hospital 1]—and [Hospital 3] operate from that. Again, we do not have access to [it]. We try to upload all of relevant information into our full electronic portal chart or CCAC chart, but that does not always happen, and it is not always the information in the chart that we need access to. But that is because CCAC is mobile in the community. That is where we are, right, like we have to use that. It is the most convenient way to do our work. Any of the [Hospital 1] programs are not available to us remotely, so they are only usable when we are here, and our time here is so limited or restricted. Technology has been a problem. (A3)

The inability of these various electronic systems to link is related to interpretations of privacy regulations in Ontario’s Personal Health Information and Privacy Act (PHIPA), understandings of data custodianship, and the lack of trust between organizations vis-à-vis data security and information technology. Key informants suggested that the legislation itself is not a barrier; rather, interpretations of the legislation by organizations create barriers to the flow of information between organizations:

Privacy is not the barrier, that it often gets thrown out as the reason why you cannot do things, but if it is part of the patient’s circle of care, privacy is not the issue. (A12)
Comments about the absence of collaboration between organizations specifically around information technology were framed in the context of a provincial scandal around consultant procurement and payment in Ontario’s eHealth agency. Key informants described how greater public scrutiny of hospitals following a 2009 eHealth scandal\(^\text{16}\) has led organizations to contract efforts to develop shared information technology applications:

> The procurement rules and your ability to actually be able to innovate from an IT space post-eHealth is insane; if I want to do like a $25,000 IT project, and I go to RFP [Request For Proposals stage], it is insane. We could have Intervention A laid-up with clinical messaging system that would be world class, but all the procurement issues and the fear of people getting outing or labeled ... people are so overly cautious post-eHealth. (M8)

4.10.4 Working in a Fragmented System

Intervention A materials described the intervention as “bridging the gaps between acute care, community care and primary care” and working jointly with family doctors to support patients following hospital discharge (LHIN Feasibility Report, July 2010, p. 2). However, key informants suggested that effective communication with Intervention A patient’s regular family doctor was challenging, with one key informant describing it as “horrendously hard” (A1). One key informant positioned the challenge of effective communication between acute care hospitals and physicians—and in this case Intervention A—with family physicians as part of a broader problem of a fragmented health system:

> I think the system is set up in such a way that you become inherently myopic. You have your own little place, you take care of everything within that own place ... and then once they leave your place and the wheels fall off. It’s not your fault ... I did

\(^{16}\) The eHealth scandal refers to the highly publicized use of consultants and non-transparent procurement practices for Ontario’s electronic health agency – eHealth Ontario. This resulted in the resignation of the agency’s CEO, as well as a number of other senior MOHLTC officials.
everything perfect where I was, and wherever else they went, that’s where everything fell apart. (A1)

The Intervention A approach was described by some as further exacerbating the communication divide between hospital and family physicians, as the Intervention was perceived as taking away an important family physician role: the post-hospital discharge follow-up appointment. However, this appointment is contingent on effective communications to the family physician, both from the hospital care team and patients, and this is often not the case.

Key informants described the environment of large, downtown teaching hospitals as one where family physicians are rarely involved in admitting, discharging or attending to their patients (in contrast to smaller centres), going so far as to suggest that family physicians are “cut out of the loop for the duration of [a] patient’s stay in hospital” (A1). These descriptions align with what has been reported in the literature. Bell et al. (2009) found that 23% of family physicians had direct communication with an inpatient care team when their patient was hospitalized, but more than half (58%) reported not receiving a discharge summary within two weeks of patient discharge (p. 383). One quarter (23%) indicated that they had no knowledge at all that their patient was recently admitted to the hospital.

In this context of fragmentation and poor communication between hospital and primary care, key informants expressed a sense of self-awareness about how Intervention A might be perceived by family physicians. In the words of one informant, “I knew that primary care, at the beginning of the project, was going to be a big issue in terms of it [exclusion of primary care physicians] there was a perception that there would be a
reaction by primary care about the project, and that it would be big, bad hospital internist coming out to take over ...” (M5). The Intervention A practice is to communicate with the family physician within 24 hours of admitting a patient to Intervention A, but key informants described this as not occurring for a number of reasons:

There is, for example, a protocol where we are supposed to call the family doctor right away when they are admitted to [Intervention A], but [if] I have never seen the patient and they have not been visited yet by CCAC, then I sometimes feel that we are kind of wasting [the family physician's] time. I do not always routinely call them because I wait until there is something that we have identified that may be an issue. (A9)

Informant: Part of it is just, like, engaging family doctors is not easy. So I do not think that care coordinators still feel comfortable—and probably never will feel comfortable—calling all family doctors, and even the doctors do not really like to call family doctors ... I do not love calling family doctors and saying ... I think you should do XY.
Researcher: Kind of an awkward dynamic.
Informant: Yeah. (A8)

In the context of a fragmented system characterized by poor communication and integration between providers, key informants described challenges in positioning the Intervention within the complex constellation of services and providers already in place. They also indicated that there were difficulties explaining the role of the Intervention to family physicians and other clinicians beyond Intervention A who were involved in the care of enrolled patients: “Fundamentally ... one of the problems is that I think in some ways we are just another group in the system, right—it's not like we can really tell other groups what to do and what isn't working ... we can kind of shake our finger at them, but they don't have to listen” (A1). While Intervention A project materials used the language of “building a bridge” between primary and acute care, other key informants described the intervention as an “add-on” (A6) or “band-aid” (M1) across fragmented health care providers.
4.11 Management Tools

4.11.1 Pressure to Succeed: “Whatever It Takes”

One key informant described Intervention A as being “terrific in many ways ... it is on a focused area of clinical care that is really needed, and it has garnered a lot of interest in the Ministry of Health—I mean, everyone knows about it” (M4). Key policy informants described the Ontario health care landscape as one with significant barriers related to scaling up innovative practices or interventions, with a sense that pilot projects like Intervention A are opportunities to test out innovations (M2). In particular, key informants suggested some pressure for the intervention results to be positive. This pressure was related to Intervention A being a high-profile pilot being run as a RCT, where the results will be known in a transparent way using high quality outcome measures and evaluation approaches. A number of the key informants mentioned the possibility that the trial, however, might have negative results:

The other downside is that you do not talk about it a lot, but it is hard to get a positive result in an RCT, and I think everybody who works on [Intervention A] feels like the team is providing good care, and we are keeping some patients out of hospital, and we are potentially sending some patients to hospital appropriately when that would have otherwise been missed. But of course if, in a given month, you prevent 10 hospitalizations and send 10 people to hospital for good reasons—where they otherwise might have died at home or, you know, suffer something else at home— ... it is hard to capture [that] as a hard outcome, as [an] RCT. So you know, yes—the research should say we are sort of biasing ourselves towards the null, and that is a worry ... [I'm] not sure there's no good way to address that though. (A8)

Comments from key informants alluded to strong pressure that the RCT have positive results, and they shared thoughts on the implications of a positive result for the intervention partners (such as the provincial scale and spread of the model). One key informant speculated that positive results would have broad implications nationally and
for project partners: “I think that if this shows that they actually save or reduce readmissions in an RCT, the value of that for the university, for the Government of Canada ...” (A12).

Intervention A team members picked up on this pressure from organizational leadership and management for the intervention to succeed, with one key informant describing this perception during the team selection process: “I think that we joked at the beginning that they pulled in the best and the brightest for this program, and that it would not fail—that was our joke, obviously” (A3). This was also reflected in the resources committed to the program: dedicated physician and staff time to the intervention from various organizational partners.

The pressure for the intervention to succeed was reflected from the front-line clinicians to project leadership; it also was apparent in the Intervention A motto, which was “Whatever It Takes.” This motto, which was developed by a physician who attended on Intervention A, was posted on the wall in the shared office at Hospital 1, and it was described as reflecting the team’s desire to “get the best outcome for the patient” (A4). For example, Intervention A non-physician staff (e.g. nurse, pharmacist and social worker) described going beyond their scope of practice and defined roles to pick up a patient’s medications at a local pharmacy or accompany patients to physician appointments (A3). Key informants articulated a strong commitment to achieving the goals of Intervention A—reducing hospital readmissions and emergency department visits. In addition to the clearly-stated commitment to improving patient care, there was a conviction that this would result in Intervention A having a successful outcome: “I cannot think of one person who has not had this sort of personality that they want this to be successful, they are
committed. You know, nobody in the team comes in and says ‘this is my nine-to-five job; once I am done, I am out of here,’ or ‘I just come in and make my hours’” (A5).

4.12 Summary and Update
The above description and analysis sections provide an overview of Intervention A in context, with consideration given to the social and program environment in which it was introduced, adapted and implemented. The analysis section details specific elements of the case that highlight the interaction between intervention mechanisms and context, and the way in which they shaped the intervention. The role of external factors and the direct input of the MOHLTC into the funding of the intervention is an important component that is woven throughout the discussion of the organizational contextual attributes in the case.

The period of data collection for this case was February–May 2011. Three years have passed since that time, and an update on the status of the Intervention A is helpful for contextualizing the snapshot of case study description and analysis with the present. Through email communication with a physician lead (April 22, 2014), an update was provided. The RCT of Intervention A has concluded with results showing no difference in outcomes between intervention and control groups; a manuscript with results is in the process of being submitted to a peer-reviewed journal. Intervention A is still operational and enrolls patients with high LACE scores following discharge from partner hospitals. The composition of the team has changed in that the physician is not on a 24/7-call-and-availability model; physicians still rotate through Intervention A, but they are only available for half-days, with after-hours coverage through an ambulatory care unit at
Hospital 1. Physicians are paid a stipend from the MOHLTC, and they are expected to provide telephone coverage from 8 am to 10 pm, seven days a week. The physician informant noted “the rest of the team is unchanged for now, but this may be modified going forward” (Intervention A physician lead, email communication, April 22, 2014). When asked about current challenges, the physician lead said “challenges continue to be lack of [an] IT [information technology] system, poor integration between in-hospital and community care, [and] lack of primary care for complex patients” (Intervention A physician lead, email communication, April 22, 2014).
Case Study B

4.13 Data Collection Approach

Approval from the REB of Hospital 5 was granted on May 9, 2011 and data collection at this site commenced two weeks later. It was completed in August 2011. When possible, the researcher observed bi-monthly rounds at the Family Health Team (FHT) 1, as well as meetings of the nurse case managers and physicians at the hospital. Three hospital meetings, three bi-weekly Intervention B team weekly meetings, and one meeting between the Intervention B team and CCAC 1 were observed over the course of data collection.

Interviews were conducted with 10 hospital and FHT 1 key informants, including managers, physicians, nurses and other clinical staff; two key informants were interviewed from CCAC 1. Documents reviewed included agendas from meetings, publicly available brochures and materials about FHT 1 and Intervention B, presentations about Intervention B, minutes from meetings with CCAC 1, and documentation about the intervention processes.

4.14 Patient Vignette

Mrs. Beta is a married 65-year-old woman who lives in a residential suburb that is in close proximity to Hospital 5. She has insulin-dependent diabetes and is obese. Mrs. Beta recently underwent a triple bypass surgery, and she has experienced complications from the bypass, including infections; she has visited the Hospital 5 emergency department frequently for follow-up. Her family physician recently retired, and she had no primary care provider, though she does have a cardiologist and endocrinologist who she has seen on an inpatient and outpatient basis. During her most-recent hospital stay for an infection, Mrs.
Beta was screened for eligibility for Intervention B and was visited by the PA case manager, who explained the intervention. Mrs. Beta consented to involvement with the intervention. Mrs. Beta was enrolled as a patient in FHT 1, and she was rostered to the practice of one of the physicians involved in Intervention B. The physician assistant (PA) case manager initially had daily telephone calls with Mrs. Beta (once she was discharged) to check up on her, see how her wound was healing, and assess the management of her infection. She arranged for the FHT 1 dietician to visit the home of Mr. and Mrs. Beta in order to provide some advice and counseling for meal planning that was appropriate to diabetes. In addition, the PA case manager also arranged for the FHT 1 pharmacist to be present at Mrs. Beta’s appointment to review her medications and to perform medication reconciliation. Finally, the Ontario Telemedicine Network remote monitoring tools were put in place in the Beta home to monitor Mrs. Beta’s diabetes, and the case manager and physician received daily reports of her blood glucose levels.

When Mrs. Beta was found to be stable, had been enrolled in a diabetes management group at FHT 1, and no longer needed frequent calls from the case manager, she was discharged from the intervention. This was approximately 10 weeks after she was first enrolled. She remains under the care of FHT 1.

4.15 The Context: Program Setting
Located in the former borough of a large Ontario urban centre, FHT 1 sits across a two-lane street from Hospital 5. FHT 1 is a large interdisciplinary primary care practice with over fifty staff, including allied health care providers (such as dieticians, nurses and social workers). There are over 12,000 enrolled patients in FHT 1 from the surrounding
community. FHT 1 is affiliated with the Department of Family and Community Medicine of the local University, and it trains residents and medical students. It also provides a wide range of ambulatory and inpatient services. Hospital 5 has a busy emergency department, with 60,000 patient visits per year, as well as about 500 inpatient care beds for acute care, rehabilitation, complex continuing care and mental health services.

Hospital 5 and FHT 1 are embedded in a residential community set in a tidy grid that is characterized by low-rise bungalows with porches overlooking neat lawns and gardens. The surrounding streets are quiet, although the areas behind both the medical building and hospital are lined with cars parked in long, orderly columns on surrounding streets. Residential side streets offer free parking, in contrast to the paid hospital parking lots.

4.15.1 Hospital 5
The front entrance of Hospital 5 from the street sees steady foot traffic, as staff, patients and family members flow in and out of the building. The central lobby is generally quiet and mostly just a space to pass through, rather than stay; a few chairs and benches ring the perimeter. There is a table that is usually staffed by a retired, elderly volunteer who directs those unaccustomed to the building to their destination. Hallways snake from the central lobby to various wings and offices, and there is a small café with a short, quick-moving line that serves wrapped sandwiches, coffee and pastries. Prominent signs for the hospital foundations fundraising campaign—which spell out “HELP” using the “H” sign for a hospital at the beginning of the word—can be seen. Below the text of the sign is a more explicit appeal: “Every day we deliver quality care but our aging facility impedes what we do best. Please donate.”
Observations at Hospital 5 took place in one room, an office located on the third floor of the B wing, an older section of the hospital with painted cinder block walls that houses a number of administrative offices and some inpatient beds. The researcher observed weekly meetings between two hospitalist family physicians and Hospital 5 nurse case managers as they discussed FHT 1 Intervention B patients. The office is a rectangular room, with built-in cubicles providing four workspaces and computers. Two computers and telephones are set up on either side of the room, with the two nurse case managers sitting at their desks with their backs facing each other. There is a small window that looks onto the main street, with the FHT 1 offices visible on the other side. It is a small, tight and efficient workspace, and visible to both nurses is a small whiteboard that has a grid with patient names and information. The whiteboard is laid out as follows:

*Figure 4.4*

Hospital 5 Intervention B Whiteboard

<table>
<thead>
<tr>
<th></th>
<th>name</th>
<th>name</th>
<th>name</th>
<th>name</th>
</tr>
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<tbody>
<tr>
<td>Discharge from hospital</td>
<td>dd/mm</td>
<td></td>
<td></td>
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<tr>
<td>Number of weeks on Intervention B</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Family support</td>
<td>Yes/No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CCAC support</td>
<td>Yes/No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical issues for follow up:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• pain</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• vomiting/diarrhea</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>• breathing/cough</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• inhaler use</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>• vomiting</td>
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<td></td>
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</tr>
<tr>
<td>• INR</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>• Lasix</td>
<td></td>
<td></td>
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<tr>
<td>• insulin</td>
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4.15.2 Family Health Team 1

The entrance to the building housing FHT 1 is almost directly across from the front entrance of the hospital, located in a squat, square low-rise brick building that houses a number of medical offices. Staff and patients pass back and forth from the two buildings, jay-walking across the street—a practice that seems familiar everyone, including the drivers. Entering the building, there is a small luncheonette to the left, with a changing daily special of hearty, home-cooked food. Staff behind the counter greet customers by name and know their orders. To the right are the FHT 1 offices, which have taken over the entire first floor of the medical building opposite Hospital 5. The gateway into the space is a large, glassed-in administrative area; three to four administrative staff usually sit there, all wearing head sets and engaged in the business of work—either making telephone calls, staring into computer screens or standing at a printer or copier at the back of the space. At the front of the reception area is a window labeled “patient check-in,” and there is a large, quiet and generally empty waiting area with enough seating for about 30 people. The waiting area has children’s toys, local news playing on a wall-mounted television and a scattering of pamphlets about FHT 1 programs.

The waiting room is quiet, and patients are ushered into examining rooms by someone on the administrative staff, but sounds and sights of the efficient and busy family practice still are present: the quiet is punctuated by an infant’s cry and the whir of a patient’s electric wheelchair. Beyond the administrative area are hallways of patient examining rooms; these double as offices for some of the physicians and nurse practitioners. Other areas of the space include a common lunchroom and meeting area for
staff, which is a windowless room that was busy with staff on break, as well as the medical students and residents who do family medicine training at FHT 1. The growing number of patients and providers in the group precipitated a move of some of the administrative and managerial staff out of the FHT 1 clinical offices to the basement of a bungalow across the street. It is in this space, a basement divided into a number of offices, where the executive director and various program directors work; this is where a number of key informant interviews took place.

Observations took place in a meeting room just across the hallway from the administrative counter and waiting area of FHT 1. This meeting room is a neatly arranged space with seating for about 10 around a large boardroom-style table, with additional seats next to the walls of the room. A large computerized presentation screen sits in one corner of the room, with a thick strand of wires hanging from it, waiting to be connected to a laptop in the room. Behind the screen is a large whiteboard that has a number of different panels with smudges left behind when the dry-erase marker was scrubbed off. The upper section of the back wall is made up of large windows that face out onto the street, giving a clear view of the main Hospital 5 entrance and clay-coloured brick exterior. When the screen is on, the vertical blinds are closed to shut out the light, darkening a bright room and obscuring the view of the hospital and streetscape.

Running parallel to the boardroom table was an oversized glossy poster with the title “[Family Health Team 1]: A leading academic family health team that improves the health of our community.” This poster included photos of FHT 1 staff. Sections with various bits of text and information filled the remainder of the poster, categorized under the following headings: “Principles that characterize a family health team,” “Our operating
principles,” “Our mission,” “Healthy weights program,” “Building the interprofessional diabetic foot wound healing clinic,” “Importance of quality,” “[FHT 1] Board of Directors,” and “Our team.” Beneath the names of staff in the “Our team” section was the text “Right service from the right provider at the right time!”

During the bi-weekly interprofessional team meeting, which took place every other Thursday at 11 am, staff would bring lunch into the meeting. They also would usually bring notes, and an administrative assistant would hook up a laptop to the large computer screen.

4.16 The Context: Social Environment

Prior to its current incarnation as a Family Health Team, FHT 1 was a small practice of family physicians that had privileges at Hospital 5. However, the preceding decade had seen significant changes to the practice of family medicine in Ontario, with growing patient needs overwhelming solo or small group fee-for-service practices (Rosser, Colwill, Kaperski & Wilson, 2011, p. 166). Pressures on the traditional model of family practice were felt on both the provider and patient sides. During the 1990s, growing numbers of Ontarians lacked a regular family doctor, and there were many media reports and studies about the difficulty of accessing primary care in a timely manner. For providers during this period, there were declining numbers of medical students selecting family medicine; there also were growing rates of burnout by practicing family physicians, who were closing practices, reducing the scope of clinical practices and refusing to take on new patients (Rosser et al., 2011, p. 166). The Liberal government, elected in 2003, campaigned on a platform that included the commitment to provide every single Ontarian with a regular family doctor.
FHTs were one design of group practices put in place by the Liberal government to meet public demand for improved access to primary care services and providers. They were aimed at improving access to primary care through a number of changes to previous methods of care delivery, including a multidisciplinary group of clinicians to assist family physicians and expand the scope of the practice. They also used physician remuneration models of blended capitation that included bonuses for achieving clinical targets and special payments for providing certain types of services (such as palliative care, home visits, prenatal and intrapartum care) (Rosser et al., 2011, p.166). In 2005, the Ontario government funded the first cohort of 150 FHTs; FHT 1 was one of them.

An integral part of the FHT model is the presence of other professionals to work alongside physicians to provide primary care. FHT 1 has been defined by the objectives of these reforms, as described by a senior manager:

... some of them [primary care reforms] are the things that we as a FHT are expected to do. So the strategic objective on which the Liberal government actually ran their platform on was the unattached patient. It is really to ensure that every Ontarian that wants a family doctor has a family doctor. I think internally here, although we are not part of the LHIN, you certainly hear a lot about equity and complexity of care, and the whole idea of cherry picking. So, you know—putting primary care in a more positive light is a huge part of this as well. (B1)

In addition to physicians, FHT 1 has registered nurses, nurse practitioners, care navigators, social workers, a registered dietician, a mental health and addictions counselor, a pharmacist, a chiropodist, a PA and a clinical psychologist on staff. FHT 1 staff described the environment as one where interprofessional collaboration on patient care is the norm, and one staff member noted that “I am used to working as part of a team, and I would like that because nobody can be everything to everybody” (B4). This was echoed by others, who emphasize the team-based model of care: “People here really do think of themselves as a
team—they really do think that these are people who are going to help the patient as a whole” (B9).

FHT 1 physicians are paid based on a capitated model, wherein they are paid a set amount per year for each patient who is enrolled in their care, plus bonuses for providing certain clinical services (such as diabetes management). All other providers, such as pharmacists, are paid a salary. At FHT 1, there is no additional funding or payment for participating in quality improvement work; a key informant said "they do it gratis, because they believe it’s good, critical care” (B1).

A pamphlet provided to patients who enroll with FHT 1 entitled “Who is Your Health Care Team?” describes what each professional does and lists the services that they can provide. For example, the section on pharmacists reads as follows:

Pharmacists are medication experts.
You should make an appointment to see the pharmacist if you:
• have recently been in hospital and are home again;
• have questions about your medications;
• are taking 5 or more medications each day;
• have a problem remembering to take medications each day (or a family member has this problem); and/or
• are having problems paying for your medications.

The pamphlet closes with a short text box entitled “Building a strong health care system,” with contains the following text:

At [FHT 1], we are helping to build a stronger health care system by:
• giving you better access to physicians and other health care providers;
• reducing the time you must wait for services;
• taking pressure off hospitals and the health care budget by finding health problems early and giving you the right treatment;
• reducing the load on hospital emergency rooms by giving you appointments during evening hours; and
• access to the right services by the right provider at the right time.

The model of care at FHT 1 is a product of the reforms to primary care in Ontario, and key informants recognize how the way in which care is organized and delivered at FHT 1 is part of this shift in primary care practice:

So one of the greatest things that has actually happened in the last little while is family physicians are saying that they enjoy practicing family medicine again. All that other stuff that they used to have to do like paperwork and, you know, spending an hour to talk to somebody about their feelings, somebody else can do that for them now. (B1)

In addition to providing primary care supported by an interdisciplinary group of providers, many of the family physicians at FHT 1 have hospital privileges at Hospital 5 and work part-time as hospitalists seeing general medical inpatients.

4.17 Intervention B
A physician based at an urban teaching hospital first brought the concept of Intervention B to Canada from the United Kingdom, and it evolved into Intervention A (see Case Study A). A physician at FHT 1 heard about the Intervention A proposal from the Intervention A physician lead, and the concept (an intensive case management model of complex patients in the community following hospital discharge) resonated. The FHT 1 physician believed there was a strong fit between this approach and the model of care already in place at FHT 1.

The Intervention B model was not derived from the Intervention A model, but rather from the original United Kingdom Intervention, which was started in a Primary Care Trust in the United Kingdom (see Description of Intervention A, pgs. 129-134 in Case Study
A for a detailed description of the UK Intervention). Developed by a physician and two nurse consultants and initiated in the UK, this primary-care-led intervention to reduce rehospitalization set out to provide “multidisciplinary case management services to people who have been identified, using a predictive model, as high risks for future emergency hospitalization” (Lewis, 2010, p. 2). The day-to-day clinical work of the UK Intervention is led by a case manager, known as a “community matron,” who is usually a more senior nurse who has received additional training for this role. The community matron leverages the staff at the PCT to provide services and support for these high-needs patients. The concept is based on the idea that all the features of an inpatient hospital ward—the systems, staffing, and daily routine—are in place to deliver preventive care to patients in their own homes in an attempt to maintain patient health at home and to reduce costly emergency department visits and hospital admissions (Lewis, 2010).

There was a sense that this intervention could fit with the capacity and resources already in place at FHT 1. In addition, key informants suggested that the dual role of FHT 1 physicians as primary care providers and inpatient hospitalists at Hospital helped them to recognize the gap in care that Intervention B could address:

It is a primary-care-driven model, and the team that they have accessible within the [UK Intervention] is a team that I already had at hand—pharmacists, social worker, case managers, physicians, nurses, nurse practitioners—and so I thought ... [the resources in the] family health teams we already have set up that very easily could expand to be in [Intervention B] work ... I was working as a hospitalist at that time, anyway, so I saw the shortcomings of, you know, acute care medicine and how patients get discharged without any proper follow up. (B4)

Intervention B was designed as a collaboration between Hospital 5 and FHT 1 to reduce rehospitalization in high-risk patients. Starting in June 2010 Intervention B enrolled discharged Hospital 5 inpatients aged 65 and above who met criteria for being at a high
risk of readmission. This was determined using the concept of risk modeling, borrowed from the UK Intervention, and a tool adapted to the Canadian context. The criteria, known as the LACE index, aggregate and create a score of readmission risk based upon Length of Hospital Stay, Acuity at admission, Co-morbidities (such as chronic obstructive pulmonary disease (COPD) and diabetes), and Emergency Department admissions in the previous six months (van Walraven et al., 2010, p. 551).

Patients whose LACE score suggests that they are at high risk for frequent readmissions are eligible for the intervention, which has three separate streams: (1) with FHT 1 for patients who do not have a primary care provider, (2) with Hospital 5 for patients with a primary care provider, and (3) for Hospital 5 patients who are being transitioned to palliative care. For all three streams, the intervention includes postdischarge follow-up by a team of health care providers.

Eligible patients who lacked a regular primary care provider were offered enrollment in the primary care practice at FHT 1, with a PA at FHT 1 providing postdischarge follow-up and care, including regular telephone calls and coordination of services from FHT 1 (including medication reconciliation and home visits). Patients with COPD, congestive heart failure and diabetes were given access to Ontario Telemedicine Network remote monitoring equipment, which was already being used at FHT 1 for remote monitoring of vital signs as part of a pilot project for chronic disease management. For patients with a primary care provider, a nurse at Hospital 5 provided postdischarge follow-up telephone calls and supports.
Different streams of the intervention were developed in order to appropriately fit within the capabilities, resources and limitations of FHT 1 and Hospital 5. FHT 1 is not permitted to provide primary care to patients enrolled to other primary care providers; as such, the hospital-based intervention provided transitional care and follow-up for patients with another primary care provider who were recently discharged from hospital. One informant explains the justification behind this approach as follows:

...our mandate is only to take care of attached people that are rostered. So the complexity came in where there were quite a few people that were being readmitted who are already attached to a family doctor, so our PA and our team could not take care of them because that is called "poaching." So that is where [Hospital 5] had to step in and also come up with some sort of a postdischarge intervention ... so their [Intervention B] is very different than ours, because they do not have nearly as many as health care providers. (B1)

The intervention at Hospital 5 was managed by two nurses who worked on a part-time basis doing care coordination, case management and follow-up with patients enrolled in Intervention B. These nurses have worked at Hospital 5 for 37 and 42 years respectively; both were paid through the Late Career Nurse Initiative, a project funded by the MOHLTC to retain nurses aged 55 and above by providing them with more administrative, less physically demanding roles. Part of these nurses’ roles was to do postdischarge telephone calls to patients in order to improve patient satisfaction with inpatient experiences and to maintain some contact with patients following discharge (B8).

When the Intervention B concept was introduced at FHT 1 and the hospital role was necessitated due to outreach to patients with an existing primary care provider, the nurse coordinators’ work dovetailed with Intervention B. The role of the nurse coordinator is to facilitate discharge planning with the patient’s physician and family, and to conduct medication reconciliation prior to discharge. Once the patient is discharged, the nurse
phones the patient at regular intervals to check in and to liaise with their family physician and other community providers (such as CCAC). The nurse coordinator could also leverage the resources at Hospital 5, particularly the specialized clinics in respirology and geriatrics (M6, B10). One nurse coordinator described the role as follows: “My role? I call the patient, I listen ... a lot of it is listening” (B8). The nurse notes if the patient seems to require medical attention and will phone the family physician or arrange for the patient to be seen at a hospital clinic, if appropriate. They followed that this is done so “if something is brewing, it is caught right away; they are treated right away, and we’ve avoided an emergency room visit” (B8). Figure 4.5 details the processes of enrollment, care and discharge from Intervention B.

**Figure 4.5**

Intervention B Process (from FHT 1 Presentation Primary Care [Intervention A] Improving Transitions in Care, December 16, 2010, p.20)
4.18 Implementing Intervention B

Intervention B was described as “a pilot of a pilot with essentially no extra funding” (B10) that used funds in an “opportunistic” way (M1). The idea for Intervention B was introduced to FHT 1 through a physician colleague who was leading the development of Intervention A. Staff and management often used Intervention A, which is described as “resource intensive” (B1), to contrast with Intervention B; as another key informant said, “[Hospital 2] runs [Intervention A] that has a budget of a million dollars; we have a budget of nothing, practically my salary” (B6). As such, Intervention B was described by key informants as “a little [Intervention] in our community here” (B1), something that is “more of a primary-care-driven model” than Intervention A (B4), which is a collaboration between hospital-based care teams and the CCAC that does not include primary care providers.

Intervention B is led by a PA and leverages the interprofessional staff present at FHT 1. The PA case manager role is part of a pilot project integrating PA’s into clinical settings, funded by Health Force Ontario, the provincial health human resources strategy. According to one informant, the management and administration of FHT 1 saw an opportunity to use the PA role as the case manager for the pilot intervention:

So, I guess, going back a couple of years ago when we were thinking about including a physician assistant in our team, there was a call out for Health Force Ontario to actually include PAs. At that time that call came out, [NAME REDACTED] had come and met with our group to talk about the idea of the [Intervention A], something that he had picked up when he was in the UK, and I think here in [NAME REDACTED], we always felt like there was definitely a problem with the seamless integration from the hospital back into the community ... the idea starting growing, growing, growing in our organization. Wouldn’t it be great if you could actually offer the services of a hospital, all the great things when the patients actually discharged, and wouldn’t it be great if rather than take away from the resources that we had (because we were already stretched), if [we] introduced a new profession and to help manage that particular program? (B4)
The utilization of a PA for case management was described by one informant as a strategic effort that “wouldn’t upset other providers and take away from their clinical load” in the interprofessional environment (B1). A policy informant echoed these sentiments, noting that the PA role is very close to the community matron role in the UK Intervention, stating “why would you not just use that opportunity and designate a physician assistant as being community matron for this model?” (M1).

However, there were a number of clinicians who questioned whether the PA was in fact appropriate for this role. There were some who expressed frustration that it was a PA in the role of Intervention B case manager, rather than an existing professional within the team:

I mean, I am used to it being nurse-led as well, right? ... But you know, at some point in my working life, I have decided that politics are what they are, and I am not going to struggle with that anymore. (B7)

So I think the lead role in the project—and I’m probably one of the only people that thinks this—[that] I really do not see [the] PA role and the nurse role [as being] that different ... I think probably I like the idea of a nurse or NP running it, mostly because they have a little more breadth (B9)

While the PA case manager role was dedicated to Intervention B on a full-time basis, all other professionals (including physicians) participated in the intervention without any specific remuneration tied to their time and efforts. Other professionals from FHT 1 would liaise with the PA about Intervention B patients on an as-needed basis and during the regular bi-weekly case conference meetings (B2).

The FHT 1 arm of Intervention B was started in June 2010, and the Hospital 5 arm of Intervention B began in September 2010. Both programs aimed to discharge patients
within 6–12 weeks of admission to Intervention B, based upon an assessment of patient safety and whether appropriate community resources had been put in place.

4.19 Case Study Analysis
The analysis section of this study is ordered according to this study’s theoretical framework, with sections specifically addressing attributes of organizational context: (1) teamwork and culture, (2) organizational structural characteristics, and (3) management tools. Analysis in this section was iterative, and various analytic approaches were used to demonstrate relationships between context and intervention mechanisms. One approach was a concept map that connected the various features of context to tell the story of the intervention context and mechanisms.17

4.20 Teamwork and Culture

4.20.1 Interprofessional Team Culture
FHT 1 was one of the first Family Health Teams in Ontario, and its history is important to understanding the culture of the organization. Given that FHT 1 was set up as part of a large-scale provincial pilot for organizing and delivering primary care, the culture is one that encourages experimentation and seeks to foster innovation. Staff seem genuinely compelled to work on initiatives and projects to improve primary care, with one key informant describing pilot projects as “trying to do what is right” and “be ahead of the curve” (B1). Another key informant described the desire to innovate within the context of a team, using words such as “trust” and “competition” to frame their sense of the team culture:

17 Please see Appendix 3 for a sample word map.
So I think [the reason] the culture here at the [FHT 1] helps support this project is that people here really do think themselves as a team. They really do ... these are people, [that] are going to help the patient as a whole, so I think that that helps because it gives people an inherent [sense that] there is some trust there, even if it is a new team member; there is some trust that you know this person who is going to be hired they are part of the team, so until proven otherwise at least and I think that has been ... The other thing about the culture is a lot of people here ... really do want to try to change things: how can we deliver care, how can we do this better, faster, etc.? So it is a little bit of an innovative [culture] and little bit of a competitive within oneself. (B9)

Key informants suggest that the culture at FHT 1 has always been receptive to pilot initiatives, and that staff are comfortable with the uncertainty and flexibility needed to work on new projects: “What helps is that when we first started the program, no one knew how it is going to function; it was a new idea, so we all sat together and started to explore things, and it was like by trial and error” (B5). Another key informant noted “we have done a ton of pilot programs through LHIN funding or otherwise, and [we] do quite well with pilots” (B2).

The staff and equipment for Intervention B were funded by three provincial pilot projects: the Late Career Nurse Initiative, Physician Assistant Demonstration project dollars, and the Ontario Telemedicine Network remote monitoring program for telehomecare equipment. A policy informant described the approach to funding Intervention B as opportunistic:

In [FHT 1], it is clear that it was opportunistic, that there was a physician assistant program, so why not? And that role seemed to be ... very close to, you know, care transition, [the] care manager role or ... the UK community matron. It is really the same thing. So, why would you not just use that opportunity and designate a physician assistant as being community matron for this model? I think the same was true of the Telehealth aspect of the [Intervention]. That happened to be there; it’s an opportunity that Telehealth was looking for a pilot. So why not include this remote monitoring as part of the model? (B1)
As such, funding for Intervention B is for salaries, and key informants described how there is very little budget to support the project. One key informant working with the Hospital 5 arm of Intervention B described challenges in working on an intervention with little funding by saying “it would be nice not to be a poor relation and have to beg for everything” (B6) before going on to detail how the lack of budget for the intervention forces staff bring office supplies from home or take them from other parts of the organization:

Our clipboard broke; I went to the Dollar Store. We needed paper; I went to the Dollar Store and bought paper. I can get things like computer paper and things like that, but if we have a patient … [and] we need to do a specimen of some sort, we do not have a budget for specimen containers … I mean it is not something that occurs often, … [but] I used to work on B3 [Hospital 5 unit], so I usually saunter over to B3 and help myself—because we do not have any money. (B6)

However, key informants suggest that the absence of funding for the program is not a major impediment, as it is embedded within the organizations and is able to leverage resources within Hospital 5 and FHT 1. “Right, because you already have, with the family health teams many of us have many of the resources already available and then it is very easily scalable.” (B4)

Similarly, Intervention B is embedded within the cultures at Hospital 5 and FHT 1. The intervention was nested within the FHT 1 environment where innovative approaches to primary care, including interprofessional collaboration, are the norm. One key informant suggested that “I find what makes this program successful is that it is team work; everyone feels that he has a key role in this program” (B5). Another key informant described how the FHT 1 context enables ongoing interprofessional communication for Intervention B, which dovetails with existing work and often happens outside of formal rounds or meetings: “You know it is not the official weekly rounds – it is all that unofficial talk across disciplines that I
can send out messages, right left and centre the given day ... I do not need to officially round because they are right there in house” (B4).

Policy informants also described how the existing work processes and organization at FHT 1, as well as the existing mix of services and providers, provided a “platform” for Intervention B (M1). In spite of Intervention B being nested within FHT 1, the program still seemed to require heavy input and leadership from the individuals in lead roles, namely the physician lead and PA. Key informants described a challenging period of time in the winter months of 2011, where both of these individuals were away from FHT 1 on a month-long leave of absence, during which the intervention “really fell apart” (B3). Key informants pointed to a lack of information, standardization (B3) and corporate memory (B9), with one informant suggesting that “[NAME REDACTED] had a lot of things in her brain that she took with her when she went [away]” (B9). It also was suggested that the leads provided critical knowledge and guidance to ensure that the intervention was proceeding smoothly, and that it was not yet at a point of maturation where clear processes and procedures were in place.

4.21 Organizational Structural Characteristics

4.21.1 Interorganizational Information Sharing

While Intervention B was embedded within the culture of FHT 1, it was also embedded within the relationships between FHT 1 and other health care provider organizations. These interorganizational relationships influenced the intervention with regards to the extent of cooperation and collaboration. There are both practical and legal barriers to accessing and sharing confidential patient health information between health care provider organizations in Ontario. In particular, key informants identified challenges in sharing data
between acute, primary and community care providers (in this case Hospital 5, FHT 1 and CCAC 1). Ontario privacy regulations prohibit sharing patient information beyond the “circle of care,” which key informants describe as being those providers directly involved in a patient’s care. This means, for example, that CCAC 1, which coordinates community-based home care and services, cannot compare patient lists with FHT 1 or Hospital 5 to see if there is overlap among Intervention B patients and CCAC 1 clients. Given that Intervention B patients are higher-needs individuals, they are often already receiving services from community providers, and there can be issues with overlap of services and duplication; this, in turn, can confuse both patients and providers. At the time of data collection (May–August 2011), staff from the two organizations connected on a case-by-case basis related to each patient. Policy informants described this as a barrier, particularly the challenges in identifying shared clients between FHT 1 and CCAC 1:

It is a barrier and something that I think the system needs to think about, because we spend an inordinate amount of time managing lists and trying to figure out whose clients are shared across the system. (M7)

I also think there are huge opportunities to integrate around the complex population, the frail seniors and really complex populations. We take care of many of them at the CCAC; many of them probably have physicians at [FHT 1], so aside from [Intervention B], many of them probably have physicians [and] probably primary care at [FHT 1]. But do we talk to each other, do we care plan together, do you know what is happening in the home, do you know that you have? ... We don’t, do not do that, and I think that leads to a missed opportunity for better outcomes for outpatients, and we can collaborate together. (M6)

The challenges in communicating with CCAC 1 staff are contrasted with the relative ease with which FHT 1 staff communicated with Hospital 5 providers.
While FHT 1 and Hospital 5 have no organizational affiliation and are described by key informants as “two autonomous entities” (B10) and “siloed” (M6), approaches to communication and information sharing between the organizations have been facilitated by a historically strong relationship. FHT 1 physicians who work as hospitalists at Hospital 5 are described as being a “bridge” (B1) or “link” (B5) between the organizations, helping to facilitate the sharing of information. A physician key informant describes the differences in sharing information about patients between Hospital 5, FHT 1, and CCAC 1:

So it is faxing and telephone that we employ with CCAC, and again I think for privacy concerns and all that we have not moved ahead, although again we kept looking and we were very close to getting access and then, you know, everything fell apart again. But certainly within the hospital, I show everything online, I document online—the nurse documents now online. (B4)

While Hospital 5 and FHT 1 do not share the same electronic medical record system, relationships and trust between providers and the organization have facilitated access. For example, the pharmacist at FHT 1 was sponsored by the pharmacy department at Hospital 5 to access that institution’s computerized physician order entry system in order to support medication reconciliation work for patients enrolled in Intervention B (B9). The electronic medical record system at both organizations and the ease with which patient information can be accessed and shared between the organizations are described as “enablers” (B10) and “a strong point of our [Intervention B]” (B4).

4.21.2 Physicians as Boundary Spanners

The organizational behavior literature suggests that professionals can act as boundary spanners between organizations, whereby professional norms and values supersede organizational affiliations (DiMaggio & Powell, 1983, p. 152). Particularly in the
relationship between Hospital 5 and FHT 1, physicians play an important role as boundary spanners, as a number of the FHT 1 family physicians also work as hospitalists at Hospital 5. The family physicians that work as hospitalists were credited with understanding both the acute care and community care dimensions of caring for complex patients who are at risk of frequent readmissions. In the words of one family physician who works as a hospitalist, “the experience of seeing patients on the inside and the outside [of acute care]” (B4) has been an important driver for the intervention:

And so it was out of that experience, seeing patients on the inside and the outside, that I have recognized that I think we have lots to offer in primary care that has not been considered in a long time—definitely not in the big centres. [For] my own patients when I have taken care of them admitted in hospital. I know it has made a huge difference having me be involved, and it has facilitated faster discharges and prevented readmissions, because I knew exactly what they should have been on and what they need to be on in hospital and what they need to have coming back out again. So I think that is essentially what triggered me thinking that primary care needs to be the key player in preventing readmissions, and we need to explore new venues—how can we participate in reducing admission to the hospital in the first place? (B4)

The image of “building a bridge” (B1), “bridging a gap,” (B3, B4) between the two organizations (whether by family physicians or other forces) was brought up by many key informants. As described above, these two organizations are located directly across the street from each other, and while they are physically separate, there is movement of patients and professionals between the two spaces. One key informant even joked during the research interview that efforts were made to include the construction of a pedestrian bridge between the two organizations in the upcoming renovations, but that “it did not fly—they [bridges] are very expensive” (B10).
4.21.3  Tensions around Relationships and Autonomy

One key informant described the challenges in establishing the intervention and working between FHT 1 and Hospital 5, and drawing upon the different sources of funding flowing to each organization, by suggesting that because “we are not funded by the same agencies, there is not an obvious drive [for] why we both should be sitting around the same table” (B4). A policy informant argued that “irrational” funding flows to organizations and providers did not create appropriate incentives to collaborate, saying “the reality is that funding is incenting people on wrong activities, and that is holding the organizations apart, and that is also holding the physicians and other providers apart, as well” (M8).

One key informant used the phrase “dynamic tension” to describe the relationship between Hospital 5 and FHT 1, and the autonomy of each organization:

The challenge of course is that dynamic, with the hospital serving the community in which the [FHT 1] is only one of the primary care players. So is there strategic planning done between the two? Yes, but they both have different primary goals. So if you were then asked are they an integrated continuum? No. Are they a helpful partner and a good part of the team? Yes. (B10)

A number of key informants detailed the development of the interventions as an ongoing process whereby the organizations developed a working partnership. However, developing a partnership discussion between management to a working patient care partnership between care providers was described as challenging:

People that were around the table for the initial meetings are not the people that do the follow through. So we had ... mainly managers at the table, but the follow through, the trickle down to the actual coordinator, doesn’t always happen. And there are so many different coordinators, as it is difficult to get the message across everybody, so I think that got missed. (B3)
The initiation of the intervention was also marked by the use of management tools—such as alignment with organizational strategies—in order to facilitate support and buy-in for the intervention.

4.22 Management Tools

4.22.1 Organizational Strategic Incentives to Participate in Intervention B

The metaphor of “bridging the gap” was also referred to with regards to the motivations for a collaboration between an Hospital 5 and FHT 1, which operate within different policy, regulatory and funding structures:

Though it was very clear that I (as a family physician and hospitalist) and we (as a family health team) sit at a different funding table than the hospital ... Because we both ... are not funded by the same agencies, there is not an obvious drive [for] why we both should be sitting around the same table, so I had to bridge that gap and constantly [try] to remind everyone it’s the patient [at the centre of care]. And I think constantly trying to really remind everyone it’s the patient at the centre of care was put into the centre of all of us, with you know, that too might have been that change that then drove an increase in ... collaboration and partnership. (B4)

This sentiment was echoed by a policy informant, who said that “it is more of building ... bridges between community and hospital, right, that we’re not so siloed in our approach [to patient care]” (M6). The importance of funders driving organizational strategy—and, as such, influencing partnerships and collaboration—was described by another policy informant, who noted “multiple funding streams were the issue” (M1).

Achieving performance targets set by funders is a driver of organizational behavior, as targets aim to access more funds or bonuses from funding bodies. Even looking at long-term funding flows, a key informant suggested that programs that aim to reduce costly readmissions to acute care could lead to a reallocation of funds from the acute care sector to the community. This reallocation would change existing funding flows where acute care
hospitals are well-funded, with community providers of primary care as the so-called poor cousin:

> We are still very siloed in the way that we do our planning, but the whole idea of keeping them out of the hospital hopefully is going to lead to less dollars spent, which then hopefully is going to be transferred into the community to increase capacity .... (B1)

The collaboration between FHT 1 and Hospital 5 seemed to be motivated by the values and strategic aims of each organization and their capabilities. The drivers for Hospital 5 participating in the intervention included pressures to reduce costs associated with frequent readmissions (B4) and a focus on avoidable hospitalizations. One key informant suggested “avoidable hospitalization seems to be the trendy thing right now,” and “hospitals are feeling that they need to do better in trying to find alternative ways of caring for this group of individuals” (B1). Key informants described different motivations for FHT 1, noting that the funding and strategies of FHT 1 are still informed by the strategies that initially drove the founding of this entity: improving access to primary care providers for Ontarians and providing incentives for doctors to roster complex patients to their practices.

In spite of different strategic drivers to participate in the initiative, the organizations were motivated to collaborate due to the resources and capabilities of the other. Key informants noted that Hospital 5 provided unattached patients that FHT 1 needed in order to run Intervention B and to use the LACE index scores to predict those at high risk of readmission. Meanwhile, FHT 1 provided the hospital with primary care resources (such as home visits) that were directed at patients who are at the highest risk of hospital readmissions. Another strategic driver for Hospital 5 was to leverage existing clinical programs with Intervention B and highlight new models of care at Hospital 5:
I think in the past ... the hospital just sent the patient out. You would take care of them, it was siloed, you never really talked to each other, but there are many resources that can support patients ... from the hospital, right? They have ambulatory care clinics and the clinics specific for geriatrics, so there is a lot of resources that can support many of the clients. (M6)

4.23 Summary and Update

The above description and analysis sections provide an overview of Intervention B in context, with a consideration of the existing social and program environment in which it was introduced, adapted and implemented. The analysis section detailed specific elements of the case that highlighted the interaction between intervention mechanisms and context, and the way in which they shaped the intervention.

The period of data collection for this case was May–August 2011. Three years have passed since that time, and an update on the status of the Intervention B is helpful for contextualizing the snapshot of case study description and analysis with the present. Through telephone communication with a physician lead (April 23, 2014), as well as a review of recent documents, an update was provided. The physician lead detailed how the intervention has evolved since the period of data collection. The lead noted that “because of the success of the PA role [in the intervention], our program received permanent funding for a PA” (Physician lead email communication, April 23, 2014) through the MOHLTC; this funding has been rolled into the annual budget of the FHT and is guaranteed. The intervention also has evolved from a focus on just enrolling complex patients who are not currently attached to a primary care practice to a focus on other patient groups with high LACE scores. Nursing home patients who have been discharged from hospital are the current target of the intervention, as they have high readmission risks. An internal qualitative and quantitative evaluation also was undertaken, and results found no changes
in measured patient outcomes from 2009 to 2011. In 2012, however, it was found that there was a reduction from 20% to 12% in rehospitalization rates for enrolled patients, although the physician lead noted that they were “not sure if this has been maintained” for subsequent years (Physician lead email communication, April 23, 2014). An additional qualitative and quantitative evaluation was undertaken which found improved patient and staff satisfaction and this evaluation concluded that Intervention B “has potential for scalability and sustainability in primary health care across Ontario.”
Case Study C

4.24 Data Collection Approach

Approval from the REB of Hospital 6 was granted on September 12, 2011. Data collection at this site commenced a week later and concluded in December 2011. When possible, the researcher attended weekly meetings of the intervention project manager and physician, as well as daily bullet rounds, which were interprofessional meetings that included all nursing staff and allied health professionals on the unit and covered all of the patients on the unit. Three team meetings and five daily bullet rounds were observed over the course of the study. Interviews were conducted with ten key informants, including managers, senior leaders, physicians and nurses. Documents reviewed include internal project manager status updates, agendas from team meetings, and documentation about the intervention.

4.25 Patient Vignette

Mrs. Gamma is a 92 year-old woman who was admitted to Unit Seven of Hospital 6 after arriving to the emergency department a few hours earlier complaining of weakness and dizziness. Her husband passed away five years earlier and she lives alone, though her daughter checks in on her daily. She has a past medical history that is significant for congestive heart failure, and she is quite frail. She had visited the Hospital 6 emergency department two months earlier after a fall in her home.

The nurse assigned to Mrs. Gamma determined that she was appropriate for Intervention C, as she met the criteria: (1) age 75 and above, (2) at risk for falls, (3) a recent visitor to the emergency department, (4) showing evidence of cognitive impairment, and (5) receiving pre-established CCAC services at home. The nurse shared this initial assessment with the interprofessional team during daily patient rounds, and it was
confirmed that Mrs. Gamma was appropriate for the intervention. The nurse made a note of this in Mrs. Gamma chart and pulled up three forms to add to her medical chart: the 8P form, the PINK form, and the PASS form.\textsuperscript{18}

After reviewing Mrs. Gamma’s chart and consulting with the hospitalist physician about her medical history and care plan, the nurse completed the PINK form, which focuses on providing a quick overview of a patient’s baseline pre-hospitalized functional, social and cognitive status. The PINK form identified that Mrs. Gamma was at increased risk for falls, leading to potential fractures. In addition, the 8P form was used to assess Mrs. Gamma other risks that could lead to a longer hospitalized stay and readmission after discharge, including several high-risk medications, her psychological state and her health literacy.

After 10 days of hospitalization, the use of teach-back (an interactive teaching tool to help patients and their caregivers understand the patient’s illness and care plan), and a medication reconciliation review, Mrs. Gamma was discharged. The PASS form—an easy-to-understand summary of her hospital stay, including why she was admitted to hospital, as well as pertinent investigations and follow-up instructions, consultations and specific symptoms to monitor—was given to Mrs. Gamma and her daughter. The same form was faxed to her family physician as a point of reference for her follow-up visit with the family physician.

At three and 28 days following hospital discharge, Mrs. Gamma and her daughter received a call from a designated Intervention C caller, who inquired about her health and

\textsuperscript{18} Table 4.4 provides an in-depth description of these forms.
the ease of her transition back home. The Intervention C caller also reviewed her follow-up instructions and assessed Mrs. Gamma’s level of satisfaction with the quality of care she had received.

4.26 The Context: Program Setting
Hospital 6 is a large community hospital with over 400 patient beds that is located in a southern Ontario city. Hospital 6 is a regional cancer centre, and it has large programs to provide emergency and critical care, internal medicine, labour and delivery care. It also is a regional nephrology system and provides a wide range of surgical services.

Hospital 6, like its surrounding environs, was first built in the early 20th century to serve the influx of workers associated with the auto manufacturing industry. Today, it is a large, L-shaped building with stacked decks of parking garages at one end of the property, and a towering chimney at the other, a hub of activity amidst a green, leafy setting that has been established as a central area of recreation and community activities in the city. The south side of the building is bounded by a historic estate that was once home to an early 20th century auto magnate who founded a large manufacturing plant in the city, and is now open to visitors. Auto manufacturing continues to be a central economic driver in the region.

Entering through the main doors of Hospital 6, one can feel the buzz of activity. There is always a line up at least 20 people deep at the perpetually understaffed and undersized Tim Hortons in the busy central lobby. A large escalator in the centre of the lobby acts as a major artery, directing staff and patients towards the many clinics, offices and units located in the hospital. Groups of nursing students from a nearby university
cluster in the lobby, wearing their starched and new-looking hospital greens. More seasoned staff on breaks from work huddle around tables set up around the Tim Hortons.

Heading up the escalators, one turns left to an elevator bank to the seventh floor, and the space becomes quieter and hushed. Unit Seven is a general medicine unit of 28 inpatient beds; the unit was recently designated as an Acute Care for the Elderly (ACE) unit, meaning that it has specialized inpatient services for elderly patients receiving care from a mix of oncology, renal failure and general medicine programs. The unit is quiet, and the hallways have a few IV poles on wheels and wheelchairs left outside doorways. The rectangular-shaped space has patient rooms lining the perimeter, all of which wrap around a central nursing station, the hive of activity on the unit. Nurses wearing scrubs and sweatshirts busily type orders into the computer, discussing the day’s work together and over on the phone.

Observations took place in two main spaces in Unit Seven: a family room at the far end of the unit and a boardroom-type meeting room along the edge of the unit where the nurses, allied health care providers and physicians meet for daily bullet rounds. The walls of the family room are glass and face out into the hallway, letting in natural light. The room has a worn coffee table, and a couch and chairs upholstered in plastic; dog-eared magazines are piled on a small side table next to the couch.

The boardroom echoes the space of the unit; it is rectangular, with a massive rectangular table and chairs all around it. There is a whiteboard at the front of the room with a large table. Due to the presence of patient names and identifiers on the whiteboard,
it could not be photographed, but it included specific clinical information around patient care and assigned providers, and is shown in *Figure 4.6*.

*Figure 4.6*

**Intervention C Whiteboard**

<table>
<thead>
<tr>
<th>Room #</th>
<th>Patient name</th>
<th>Patient name</th>
<th>Patient name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isolation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDD</td>
<td>[Estimated discharge date]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DEST</td>
<td>[Destination]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient/family aware</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PT/OT [Physiotherapist/Occupational therapist]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IV foley</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RD [Registered dietician]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SLP [Speech language pathologist]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SW [Social work]</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Along the boardroom walls are fluorescent computer-printed pages posted in rows, which read as follows:

**Poster 1**
[Intervention C]
Reduce readmission rates: through safe transition home
Improve communication: with primary care physicians [sic]
Improve patient education: and satisfaction [sic]
Ensure high risk patients are identified: and risk specific interventions applied [sic]

**Poster 2**
[Intervention C] Tools
The target: includes 8P screening tool, universal patient dx checklist, general assessment of preparedness
Patient PASS: a transition record
Teach-back process
Risk specific interventions
Written discharge instructions

**Poster 3**
Risk Assessment: 8P Screening Tool
Psychological
Principal diagnosis
Polypharmacy
Patient support
Poor health literacy
Prior hospitalization
Palliative care
Problem medications

**Poster 4**
[Intervention C]: General Assessment of Preparedness (GAP)
A component list of issues important to providers and patients (and their caregivers) surrounding the readiness of patients for transition out of the hospital.
**Poster 5**
Universal Patient Discharge Checklist
Universal set of expectations for all patients being discharged from the hospital to home.

4.27 The Context: Social Environment

Hospital 6 has undergone a series of changes in the past two decades following the Ontario Health System Restructuring Commission recommendation in 1998 that four regional hospitals be merged at one site. That site was designated as Hospital 6. The years following the merger were difficult ones for the new organization and surrounding region, with some communities feeling neglected due to service reductions at their local hospital facilities. Hospital 6 also experienced a series of growing pains during the merger, with multiple changes in management and leadership at the senior executive and governance tables. Two high-profile class action lawsuits regarding infection control were launched against the organization in 2003 and 2004, charging that staff did not appropriately protect thousands of patients from possible contamination.

In 2008, a new CEO was appointed to the organization, remaining in place during the period of data collection. This individual’s leadership was highlighted as setting in motion “an organization-wide focus on quality and safety improvements,” and in 2011, a five-year strategic plan was released that built on these ideals under the motto of “Excellence—every moment, every day.” This strategic plan notably picked up on a number of focuses of the Ontario government’s *Excellent Care for All Act* (2010), which affirmed and created stronger regulatory and public accountability mechanisms around Ontario’s health system, while increasing the delivery of high-quality health care.
A defining feature of the inpatient medicine program at Hospital 6 is the hospitalist group, which also was shaped by the previous decades of restructuring. The restructuring coincided with what Smith and Sivjee (2012) suggest is “the sentinel event” for the increase in hospitalist practice and programs in Canada: a shortage of family physicians during the 1990s (p. 1557). Traditionally, family physicians would admit, care for and provide post-discharge care to patients in hospital, as would hospital-based specialist physicians, nursing and allied health staff. However, during the 1990s, the absence of family physicians to admit and care for patients in hospital led to an increased volume of so-called orphan patients, who were arriving and being discharged from hospital with no family physicians involved in their care. Family physicians were then asked to manage this increased volume of orphan patients while their outpatient primary care practices also were growing. These factors, coupled with an aging, increasingly complex patient population and poor remuneration for inpatient care, meant that many family physicians withdrew from hospital practice (Smith & Sivjee, 2012, p. 1557). Prior to the restructuring, family physicians in the community saw their patients at the local hospital, but with the announcement of the restructuring came the withdrawal from hospital practice en masse by family physicians to focus on their community-based primary care practices.

One nurse who has worked at Hospital 6 for 21 years noted that “there are only about three family physicians that still come into hospital” (C1). One key informant described family physicians in the region as having “completely given up on the hospital,” having “left the hospital and not [looked] back” (C4). Another nurse, who has been on staff at Hospital 6 for almost 40 years, described the issues associated with family physicians no longer seeing patients in hospitals as follows:
Family doctors, since they are no longer coming into the hospital, do not always know when their patients have been admitted to the hospital, the reasons that they were admitted to the hospital, what tests have been done, what blood work has been done, etc. (C5)

The Hospital 6 hospitalist program has been in place since 2001. That year, Hospital 6 recruited five family physicians from the surrounding community to provide inpatient care as full-time hospitalists; in 2005, it expanded the program to include general internal medicine specialists as full-time hospitalists (Yousefi & Chong, 2013, p. 204). During the period of data collection (September–December 2011), the hospitalist group included 16 physicians with backgrounds in family medicine, internal medicine, geriatrics and palliative care. At Hospital 6, hospitalist physicians care for acute medical, oncology, renal dialysis, stroke, palliative care and rehabilitation patients (Yousefi & Chong, 2013, p. 206). One of the hospitalist physicians offered a succinct description of the group’s role:

Basically, the role of a hospitalist is to coordinate care for patients from the time of admission through their hospital stay for a safe discharge and transition back to the community ... that is what our role is in a nutshell. (C2)

The hospitalists work in a group-based model and are paid a set salary. There is a chief hospitalist who deals with the administrative aspects of the hospitalist practices, including setting up scheduling and interactions between the group and hospital senior leadership, including the Medical Advisory Committee. The hospitalist program at Hospital 6 is described by one physician as being “quite ingrained and represent[ing] a large portion of the general medical care” (C9) at the organization.

Hospitalists work across a number of different units and floors at Hospital 6, working three weeks out of every four, rotating through various units (Yousefi & Chong,
2013). A hospitalist can work on one unit for a week, and then not rotate back onto that unit for another few weeks. The approach to scheduling is described by a hospitalist physician as follows:

The way we organize our program, it is kind of on a week [block]. So you either are on a week or you are off a week; it is not like you can do half a week or come in the morning and round, and then rest of the time you have protected time or somebody is covering you. It does not really quite work that way. It is just the way we distribute the patients and schedule the rotations. (C4)

The configuration of nursing on Unit Seven follows a more traditional model, with nurses working shifts and reporting to two senior nurse managers. This was described as a co-managed role, where there is a nurse manager and a nurse specialist on every patient unit. A nurse described the breakdown in responsibilities between the manager and specialist as follows:

The manager is responsible for operations, budget, hiring, firing requirements, safety, process change evaluation, quality, safety. The specialist, in contrast, ... is more patient(s) focused. So it is more about the patient experience, transitions, ... [and] her focus is on education for the staff-practice issues, teachable moment[s] ... all those nice things that really help to do, but we never get a chance to do. (C10)

There are varying levels of seniority amongst nursing staff, and a feature of the nursing environment is the presence of student nurses on the floor. There are generally six nurses on the floor during a shift to manage patient care for 28 inpatient beds (which are usually full). There are also two senior nursing staff who work on the unit in the role of utilization specialist, which is described by one nurse as “teaching and providing information and assistance for transitioning patients through the organization and health care in total” (C5).
4.28 Intervention C

Intervention C has stated aims of improving patient outcomes through better transitions of care. It has been developed into a national initiative of the American Society of Hospital Medicine (SHM) and includes a suite of materials and tools to support project objectives. Intervention C is described as a “national initiative led by the Society of Hospital Medicine to improve the care of patients as they transition from hospital to home” (“Project BOOST Mentored Implementation program,” para. 1). The website suggests that Intervention C reduces readmissions by:

- Mentoring hospital teams to map current processes and create and implement action plans for organizational change.
- Providing a suite of evidence-based clinical interventions that can be easily adapted and integrated into each unique hospital environment. (“Project BOOST Mentored Implementation program,” para. 3)

According to the SHM website, Intervention C objectives are to:

- Identify high-risk patients on admission and target risk-specific interventions.
- Reduce 30 day readmission rates for general medicine patients.
- Reduce length of stay.
- Improve facility patient satisfaction and H-CAHPS\(^{19}\) scores.
- Improve information flow between inpatient and outpatient providers. (“Project BOOST Mentored Implementation program,” para. 2)

\(^{19}\) H-CAHPS (Hospital Consumer Assessment of Healthcare Providers and Systems) Survey is a national, standardized publicly reported survey of patients opinions on hospital care in the United States. This survey was developed by the Centres for Medicare & Medicaid Services as well as the Agency for Healthcare Research and Quality.
A physician involved in the development of Intervention C described it as a “mentored implementation quality improvement” project (C3). It does this by providing toolkits and workbooks to assist “sites that have less familiarity with quality improvement efforts and care transitions specifically ... [to] work through how to implement [Intervention C]” (C3); SHM also provide a website and listserv where participating sites can communicate. Sites can sign up to have a mentor—usually a physician involved in the development of the tools and project—work with the site through regular telephone calls and a one-year-long site visit. However, Intervention C tools are freely available, and the physician interviewed acknowledged that “we do not know how many other sites [exist where] ... you can download [Intervention C] tools and begin to do [Intervention C] on your own” (C3).

4.29 Introducing Intervention C at Hospital 6
Intervention C was introduced to Hospital 6 by the chief hospitalist, who heard about the intervention at the 2009 Annual Research and Teaching Meeting of SHM. This individual saw a connection between the aims of Intervention C and the hospitalist program at Hospital 6, saying “so at that time (which was 2–3 years ago actually), part of my mandate [was] looking at the overall hospitalist program, and I recognized the transition [from hospital to community] was becoming important” (C9). The physician noted that improving transitions was becoming a greater focus for Hospital 6, adding that during the time that he heard about Intervention C, a group of 20 family physicians had given up hospital practices, continuing the trend of family physicians leaving hospital practice. The impact of this was felt by the hospital as “all of a sudden, you inherited all the patients ... that becomes more
an issue because you sort of recognize that you know all of these patients would no longer have the same contact” (C9).

A policy informant credited the singular leadership of the hospitalist physicians with bringing Intervention C to Hospital C:

The initiative was born out of one person’s leadership and championship from the outside. It is really all about [NAME REDACTED] having been exposed to the program through the American Society of Hospitalist Medicine and being frustrated by the limitations of what they can do at their site, and wanting to do better. (M1)

Other physicians and nurse key informants agreed that it was the initiative of the lead hospitalist that brought Intervention C to Hospital 6. Another physician who also attended the 2009 Society of Hospital Medicine conference described how following a presentation about Intervention C at the meeting, there was a recognition that this intervention would be a good fit at Hospital 6:

I remember talking to [NAME REDACTED] at that time that this is something we need to do, and in fact, right after that I bumped into [NAME REDACTED], who is the coordinator, sort of that person in charge of [Intervention C] at SHM [Society of Hospitalist Medicine]. So I remember right after that in the afternoon I bumped into her. I stopped her and said “Can we talk? This is really something we’re interested in.” And so we changed the cards and stuff, and then when we came back, [NAME REDACTED] really took the lead in terms of taking it to the admin and getting support for it. (C4)

The decision to bring Intervention C to Hospital 6 was made by the chief hospitalist with support of some physicians in the group, who also selected Unit Seven for the intervention pilot. When a key informant nurse was asked how they joined Intervention C, she answered “we were told we were [implementing Intervention C]” (C10). The nurse followed this statement by saying “basically, the physicians and the senior team decided it was a good thing to do” (C10).
The plan for Intervention C was to pilot the tools on one inpatient unit and then move to a second unit, with the goal of eventually spreading the Intervention throughout the entire hospital. The first year of Intervention C, however, focused on piloting the intervention on Unit Seven. Key informants provided a number of different reasons why Unit Seven was chosen as the unit to pilot the intervention. These focused on the patient population at the unit and a sense of a readiness for change among the staff. The floor had been designated as an ACE unit in early 2010, and as such, the patients are generally elderly. This meant that the patients “would have a lot of high-risk features that would lead them to have a high likelihood of readmission” (C2) and “very complex needs” (C7). The unit had already had gone through a number of quality improvement projects, and there was a sense that the staff on the floor were ready for new processes and practices. A physician key informant described Unit Seven as “one floor that seemed to be more open to change,” with nurses who were generally “willing to try to organize different things” (C4). Another key informant noted that the unit “sort of fit the bill with respect to understanding change, understanding continuous improvement” (C7), with key informants identifying the use of a white board where patient information was displayed, and patient rounds focused on discharge as dovetailing with Intervention C.

The next unit identified for the spread of Intervention C was Unit Six, an inpatient unit one floor below. This floor is not an ACE unit, and it is divided among patients admitted for kidney disease care, medical oncology and palliative care. Patients on the unit, however, are described as complex and “high risk” (C2). Unit Six was also seen as being amenable to the spread of Intervention C. According to a number of key informants, patients in the ward “have a lot of [transition] support to begin with” (C2), including a
dedicated pharmacist, social workers and palliative care nurses who are focused on issues related to Intervention C (such as medication reconciliation and safe patient discharge).

While Intervention C is focused on improving patient transitions from the hospital back into the community, the project team was centred on in-hospital staff, with very little formal involvement of community-based providers and organizations. In fact, there were only two main community providers and groups discussed in relation to Intervention C: family physicians and the regional CCAC (CCAC 2). One key informant explained why information flows to the community are important in transitions:

[We] shared that information that we have in the hospital with community partners so that information flows for patients that are going home with CCAC services and we can link up with their physicians and make sure that they know exactly what has happened during the stay at hospital. [This is done] with the hopes of preventing some of the readmissions that we usually see with our elderly population. (C6)

As described above, family physicians that had previously maintained hospital privileges and had helped to facilitate discharge by seeing patients in hospital had left hospital practice en masse, necessitating the introduction of hospitalist physicians to care for the many orphan inpatients at Hospital 6. Given that family physicians no longer practice in Hospital 6, the best practice was to provide family physicians with a discharge summary detailing the patient’s hospitalization and any changes to their health, medications and care plans. However, key informants indicated that family physicians often do not receive a patient’s discharge information. This was related to a number of factors, particularly the discharge process itself, which involves filling out a triplicate discharge form (with one copy given to the patient, one copy faxed to the family physician if their contact information is available, and one copy maintained by the hospital and
placed in the patient’s file). Some key informants described this process as “very poor” (C8) since the offices of family physicians can be difficult to contact, meaning that “most of the times some of the family physicians have no idea that the patient has been admitted to Hospital 6, no idea what has happened” (C6). In addition, the issue of orphan patients is a challenge:

Not all patients ... know who their family physician is in the community [and] not all patients have the family physician in the community, so sometimes there is not anyone in the community [to which] they transfer, and we do not give a patient copy of a dictated discharge from the physician. (C10)

Given that discharge processes were identified as a challenge prior to initiating Intervention C, both an information sheet and a survey were sent out to about 250 family physicians in the community, telling them about Intervention C and “trying to get their advice or their feedback on some aspects of how we were communicating with them” (C4). This survey and information was described by one key informant as “quite a little campaign to let [family physicians] know what is happening” (C5), but other key informants have been doubtful about the knowledge and receptivity of family physicians. As one informant notes, “I think they [family physicians] may have peripherally heard about [Intervention C]” (C4), and another key informant described the family physician reaction to [Intervention C] as being somewhat skeptical and disengaged:

I think because it is a small group of people doing a big job, it is not always easy to be able to get the information out. And I think the [family] physicians are notorious for saying “oh yeah, another program; let’s see how this works” and things along these lines. (C5)

With CCAC 2, the main goal was to align communications so both hospital and CCAC 2 staff were aware of Intervention C and the tools being used to improve discharge processes. A parallel CCAC 2 initiative known as “Home First” was launched by the regional LHIN in September 2010. Informants noted that Home First—which aimed to moderate
demand for long-term care by transitioning all patients home and reducing the number of patients waiting in hospital for long-term care beds—had $7.3 million in funding from the Ontario MOHLTC Aging at Home strategy to provide additional home care and case management services from the CCAC 2 and community support service agencies. One key informant describes the situation prior to these initiatives as follows:

[It was] sort of like two different processes ... were going on. It was like CCAC was doing their thing and the hospital was doing their own, and they were coming together, but it was not really unified. It was kind of like everyone was working specifically with the patient, but the communication piece was not always there. (C2)

The two initiatives were described as having the same goals, and being complementary:

So in layman’s terms, if Home First is thinking of the patient’s needs for when they reach the community, [Intervention C] is tightening [those] needs ... preparing the patients when they have to move into the transition to community [so] that all gaps are filled. So things as small as having their keys ready or food in the fridge—those little minor things cause delays by one or two days—so [Intervention C can] help strengthen that process. Home First helps ensure that ... when [patients] are in the community that there is enough support to sustain them in the community. (C7)

Another key informant described how the messaging around the projects was focused on describing how the two aligned:

Home First is designed to get people home, and [Intervention C] is designed to get them home safely; and in order for you to get them home, you need those resources, but you also want to make sure that the transition is as safe as possible and that is what [Intervention C] is specifically designed for ... I think that message sunk in (C4)

Given the central role of CCAC care coordinators in discharge, they had already been working closely with staff on Unit Seven, and a practice was in place for care coordinators to join patient rounds. It was suggested by some key informants that the CCAC care coordinators who worked on Unit Seven were aware of Intervention C, but the central project planning and management group that led the initiation and implementation of Intervention C at Hospital 6 had no CCAC representation or input (C4).
4.30 Implementing Intervention C at Hospital 6

Hospital 6 is the only known Canadian site to participate in Intervention C, joining a group of American hospitals in a Society of Hospitalist Medicine Transitions of Care Collaborative. The collaborative started in March 2010. The Collaborative used a mentored implementation approach to the intervention meant that an advisor affiliated with the SHM visited the organization and participated in monthly teleconferences; the advisor also was available by email for “troubleshooting” (C3).

Staff were introduced to Intervention C at Hospital 6 through a day-long exercise where current processes on Unit Seven (from admission to the unit through to discharge) were mapped out. This mapping exercise involved members from the interdisciplinary team, including ward clerks, physiotherapists, front-line nursing, pharmacists and social workers (C2). The exercise was described in the vernacular of quality improvement, with one key informant describing the day’s activities as “a mechanism which is called a ‘SIPOC’: it means Supplies Input Process Output Customers” (C7). Intervention C provides a suite of tools related to patient flow and transition processes, and the tools were applied over the process map to see where they were appropriate and where they required adaptation or “revamping” (C2).

At the time of data collection, four main tools from Intervention C had been implemented at Hospital 6. Table 4.4 draws on documents reviewed from the intervention to outline the Intervention C tools, their described purpose and intended use.

<table>
<thead>
<tr>
<th>Tool name</th>
<th>Completed by</th>
<th>Purpose</th>
<th>Completed during</th>
</tr>
</thead>
<tbody>
<tr>
<td>PINK</td>
<td>RN/RPN</td>
<td>PINK (Patient Integrated Needs and...</td>
<td>Patient admission to</td>
</tr>
<tr>
<td>Form</td>
<td>Team</td>
<td>Description</td>
<td>Period</td>
</tr>
<tr>
<td>------------</td>
<td>-----------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>Knowledge</td>
<td>This form records information prior to admission (e.g. housing situation, incontinence, etc.) and contains a discharge checklist that has a set of expectations that need to be met prior to discharge (e.g. medications reconciled). The form also has a GAP (General Assessment of Preparedness) that lists issues around readiness to transition home.</td>
<td>the unit</td>
<td></td>
</tr>
<tr>
<td>8P form</td>
<td>Interprofessional team</td>
<td>8Ps (Problems with medications, Psychological, Principal diagnosis, Physical limitations, Poor health literacy, Poor social support, Prior hospitalization, Palliative care)</td>
<td>Patient admission to the unit and care while on the unit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A screening tool that assists in identifying patients that require collaborative planning from the team to avoid a difficult discharge or re-admission back to hospital. Aspects of this form will initiate care from a member of the care team (e.g. polypharmacy risk will draw on the pharmacist).</td>
<td></td>
</tr>
<tr>
<td>PASS form</td>
<td>Hospitalists</td>
<td>PASS (Preparation to Address Situations Successfully)</td>
<td>Period prior to patient discharge</td>
</tr>
<tr>
<td></td>
<td></td>
<td>This form documents patient issues related to discharge like reason for visit, discharge instructions, home services, referral/follow-up reminders and recorded medication changes. This is faxed to the family physician after discharge, and a copy is also given to</td>
<td></td>
</tr>
</tbody>
</table>
When asked to describe Intervention C, there was a great deal of heterogeneity in responses from key clinician informants about the attributes of the intervention. Some emphasized the patient education and teach-back aspect of Intervention C, while others focused on the use of Intervention C tools to facilitate transfer of information between providers. Still others noted that the intervention is focused on anticipating barriers to discharge and beginning to plan for discharge at admission. *Table 4.5* details responses of five key informants about attributes of the Intervention.

<table>
<thead>
<tr>
<th>Postdischarge follow-up call script</th>
<th>Intervention C Callers</th>
<th>Tool is used to conduct post-discharge calls to survey patients’ current satisfaction while at hospital, as well as current experiences at home.</th>
<th>24 hours after discharge; 72 hours after discharge</th>
</tr>
</thead>
</table>

*Table 4.4*

Intervention C Tools (Based on Intervention C documentation: [Intervention C] FAQ, [Intervention C] PINK form, 8P form, PASS form, Post-Discharge script)
The heterogeneity of understanding what comprises Intervention C seems linked to the way in which it has been rolled out. With no dedicated staff and a small intervention team, there are competing priorities for staff time and attention. A lack of standardization around implementing the Intervention C tools may be related to this. In addition, the intervention was not a short-term pilot with major changes; rather, it was framed as a long-term change to processes at Hospital 6, which can be time-consuming and slow to show results. Speaking of the nature of this change, one key informant suggested “this is not a diet; this is a lifestyle change” (C3), an apt way of describing how Intervention C should be perceived at Hospital 6. However, it seemed that this change lacked broad buy-in across front-line staff. The following section will provide more detailed analysis around the interaction between the context at Hospital 6 and the intervention mechanisms.
4.31 Case Study Analysis

This section is ordered according to this study’s integrated theoretical framework, with sections specifically addressing the attributes of organizational context of (1) teamwork and culture, (2) organizational structural characteristics, and (3) management tools. Analysis in this section was iterative, and various analytic approaches were used to demonstrate relationships between context and intervention mechanisms. One approach was a concept map that connected the various features of context to tell the story of the intervention context and mechanisms.\(^{20}\)

4.32 Teamwork and Culture

4.32.1 Unit-level Culture: Change Fatigue

The concept of change fatigue was articulated at a number of levels, including the individual providers, Unit Seven and the meso-organizational level. Huy (2001) characterizes the change-fatigued organization as one that undergoes successive and overlapping change initiatives, leaving it “constantly out of synchronization” (p. 612). A number of key informants described the culture at Hospital 6 as being “in transition,” with staff dealing with “change-oriented culture issues” (C3). Key informants described how over the course of the past few years, an onslaught of changes in senior administration had taken place, with a new CEO taking the helm alongside new senior directors. These changes were partly driven by the need to manage a growing hospital deficit and improve financial management, and they happened alongside changes in the delivery and organization of

\(^{20}\) Please see Appendix 3 for a sample word map.
patient care—changes that occurred because of increased emergency department volumes, pressure to reduce inpatient lengths of stay, and the need to develop more outpatient models of care by “downsizing some floors” and “changing practice patterns of some nurses” (C4).

These changes have impacted jobs for front-line staff, and one key informant noted that organizational change initiatives have made nurses more involved with discharge processes. Key informants suggested that with new roles and shifting responsibilities, “people are being put into roles that they did not see the results of traditionally being involved in” (C8). The confluence of senior management changes and practices changes together was cited as a reason for staff being fatigued or resistant to change on Unit Seven:

So I think for those reasons—regeneration, a constant turnover in management ... competing priorities, Home First and all this other stuff—we had so much upheaval in a way that we have not really been able to roll out [Intervention C] in a smooth manner, because of all those bumps along the way. I think a year and a bit out, we are not really where we should have been. (C4)

Other key informants made similar comments about the pace of change, suggesting that too many change initiatives have bogged down staff; the result was that “the culture to receive or accept change is not where it should be” (C10). Another key informant suggested that change efforts are time-consuming, and that “we’re not there yet” because it can take “6–12 months at least [for staff] to buy in” (C7).

Change fatigue at the unit and individual level was linked to the broader culture at the organization:

I would say it is like [Hospital 6] to start something and never sustain it: that is the culture. So it will not be surprising to me if [Intervention C] does not continue like that—if somehow it falls off our radar and does not become our priority. That would not surprise me. When something [is] started here, we never build in a sustainability
plan, and every time there is something else they okay, [they never indicate] how are we going to sustain them—and then, you know, we do not. (C10)

However, there seemed to be a distinction between front-line staff (such as nurses and ward clerks) buying in to improvement and change efforts, and the role of physicians in leading and participating in change initiatives.

The role of leadership is seen as a major driver in culture change, particularly physician leadership from the hospitalist group. While physician leadership and involvement has been a critical lever in bringing the intervention to the organization, there is a heavy reliance on physicians to lead the intervention and remind other staff about using intervention tools and processes. As one physician noted during a team meeting, “I feel like it [Intervention C] dies when I’m not here.” (C2) Another key informant echoed this sentiment, noting that when a physician who was identified as a lead for Intervention C is present on the unit, “it just gets done” (C6).

4.33 Organizational Structural Characteristics

While care transition interventions are focused on patients moving across multiple settings of care, Intervention C centres on providing staff, patients and families at Hospital 6 with tools to prepare for discharge. Part of the goal of Intervention C is to improve communication across health care providers within and outside the hospital to ensure that patients are discharged safely and effectively. In the development and implementation of Intervention C, it was recognized that there were many siloes and poor communication, both within the hospital and with community partners. Intervention C aimed to improve communication amongst these various groups (which were previously not working together), but the intervention had no incentives to offer organizations to cooperate. As
such, while the tools may support improved communication in principle (e.g. the PASS tool is provided to the patient, their physician and their caregiver), the intervention was embedded within an organization that did not have systems in place for the internal or external communication of information.

4.33.1 Organizational Complexity: Communication Between Units

Key informants described major redundancies and gaps in patient information from a patient’s movements across the organization (from entering the emergency department, to being admitted to a unit, to discharge back to the community). One key informant described how there is a “very fractured patient chart” (C8), with patient documentation being saved in many forms (such as computer-entered data, hand-written and dictated notes) as they transition through the hospital. Some physicians, however, are unable to access online information systems, resulting in a situation where “as it turns out, particularly for [Intervention C-type] patients, the ability to get a logical set of information on the patient is virtually nonexistent” (C8). This key informant also suggested that individual hospital units are creating charting tools and taking matters “into their own hands” (C8) as the hospital has been slow to make wide-scale change on information sharing. There also is an outdated Meditech system that is difficult to use and has many technical barriers.

Many key informants describe the environment at Hospital 6 as one characterized by multiple change initiatives, all requiring time and resources, and senior management are being pulled in many directions to support these competing priorities. As such, rather than cooperating and working together to achieve a common aim, organizational units compete and pursue their own objectives.
4.33.2 Relationships with External Providers: Family Physicians and CCAC

Key informants described major variations in communication practices, with some hospitalists attempting to phone or fax discharge information to family physicians while others do not. Prior to launching Intervention C, a survey was sent out to 250 physicians asking about discharge information and communication preferences with Hospital 6. Response rates were low, however, and staff were mixed on the impact that the survey had in connecting with family physicians.

Similarly, barriers in communication with community agencies, including CCAC 2, were noted:

It was sort of like two different processes that were going on. It was like CCAC was doing their thing, and the hospital was doing their thing, and they were coming together, but it was not really unified. It was kind of like everyone was working specifically with the patient, but the communication piece was not always there. (C2)

However, the Home First initiative and Intervention C have drawn considerable attention to improving communication between the hospital and CCAC staff, which was characterized by key informants as “siloed,” (C5) having “a lack of downward communication,” (C6) and displaying “a lack of collaboration.” (C6) CCAC 2 is described by key informants as having a gatekeeper role to other community social services, with key informants having little communication and knowledge of community social service providers; one physician key informant was unable to remember the name of regional organization, which provides a great deal of home care and respite services. The absence of collaboration between CCAC 2 and Hospital 6 on Intervention C was noted by a policy
informant, who described Intervention C as “hospital-focused” and as “peripherally dabbling with ... collaborating with the CCAC, but it is not [a] primary [focus]” (M5).

4.34 Management Tools

Change fatigue at Hospital 6 and on Unit 7 was a challenge for intervention leaders. The following section details the application (and, in some case, the absence of) management tools to address staff concerns about participating in the intervention.

Intervention C was announced at Hospital 6 as an innovative change, with the implementation of new tools focused on improving discharge processes and practices. Leading the implementation of these tools (developed by Society of Hospitalist Medicine group) was hospitalist physicians and a performance improvement consultant. While front-line staff were not consulted about the initiation of Intervention C on the unit, efforts to build staff buy-in were undertaken through exercises to adapt tools to the unit and to introduce staff to the project aims related to Intervention C. As a result, the tools had a substantial impact on the daily work of front-line staff, nurses and physicians who were required to complete them, and staff felt vulnerable to this change, with some being unwilling to respond to the intervention. Key informants describe a great deal of front-line pushback related to the burden of completing the tools and the extra work imposed by Intervention C.

When asked about a key challenge to Intervention C, one key informant described front-line staff as perceiving the intervention as “work, extra work,” (C9) before qualifying that statement:
It depends on how people ... perceive this project. Is it an add-on, and is it going to be beneficial? I think if they see it as add-on, it is going to fail. (C9)

Another key informant described staff pushback to the intervention due to the perception that it would impose additional work in an already busy shift for nurses:

[Nurses are] task-focused [and] ... it is just one more thing that they have to do. and they see that it is a bit redundant. They do an admission assessment, they do HOBIC [Health Outcomes for Better Information & Care]21, they do more than one screen that they would have to do for admissions, they have to screen them for MROs [acronym not known], and then now we have to [Intervention C] them. (C10)

A challenge articulated among key informants was the need to sell front-line staff on the value of Intervention C to patient care. As one key informant on the subject explains:

I think what would help is if we could as a leader ... show examples of how [Intervention C] has actually improved patient transitions or improved the outcomes of the patients when they were discharged—if you could show that your intervention actually made a difference. (C10)

Another informant emphasized the importance of promoting results and improved patient outcomes when selling the intervention to front-line staff and convincing them that the intervention was worthwhile:

So the key from my standpoint is that for the people who are actually doing the work, it has to show, has to continue to show and in the end sell it to some degree that there is continuing benefit—it is making a difference. Otherwise we will lose support. (C9)

Another challenge in gaining front-line staff buy-in was conflicting quality improvement projects leading to change fatigue. While some key informants described Unit Seven as a unit comfortable with change and quality improvement processes, others described staff as “burnt-out” and “overloaded” (C2). Huy (2001) emphasizes the role of timing in implementing change intervention, suggesting that successive and overlapping

21 HOBIC refers to a system for measuring quality in nursing-related outcomes.
change may in fact lead to “change fatigue” rather than readiness (p. 612). This was noted in relation to the overlap of the Home First project, which coincided with Intervention C, leading to staff pushback and resistance. As noted above, seeing the value of the intervention through demonstrated results can enhance staff trust and buy-in, but key informants suggested that this was not the case with these two interventions:

You have [Intervention C] and you have Home First, and you know you have got staff meetings, and you have got this and that and the other thing. You do not have that big, you know, “let’s get everybody really on board,” and you know it will be sustainable if you can see results, but if you cannot see results, then it is very difficult to be sustainable. (C5)

The challenge of competing initiatives was also recognized by a policy informant, who noted that “there is a lot of competition for the attention of the staff and how it [Intervention C] aligns with other priorities, messaging, how it kind of fits in the hospital main priorities; I think it has been challenging for them” (M1).

4.34.1 Leadership Incentives for Intervention C

In spite of front-line change fatigue, Intervention C was received with enthusiasm from organization senior leadership. Intervention C aligned with the strategic plan and vision at Hospital 6, which had been revisited and revised in 2011 to include the addition of a new mission statement: “Excellence—every moment, every day.” This new strategic plan emphasized quality improvement and increased patient satisfaction and outcome measurements related to patient flow. Intervention C was palatable to senior leaders as it “aligned with where [Hospital 6] was going, so it was perfect timing for where we wanted to go” (C7). The sense that timing was important in the adoption of Intervention C was echoed by a number of key informants who had managerial or administrative roles. This alignment was used by the individuals leading Intervention C, who leveraged the focus on
patient flow in the strategic plan to gain institutional support for Intervention C and demonstrate the alignment between the objectives of Intervention C and the broader strategy being pursued at the organization.

Further, given that they are salaried hospital employees and work throughout the hospital, the hospitalist physician group was particularly well-positioned to introduce quality improvement initiatives. One key informant suggested “in the hospitalist program, everything that you are doing should be aligned with corporate” (C9). The hospitalist physicians suggested that their participation in organizational improvement is related to the structure in which they work, and whereas an independent physician with hospital privileges works as a consultant to a hospital system, the hospitalists are part of the system of care at Hospital 6. The connection of hospitalists to the system processes was an important lever in bringing the intervention to Hospital 6 and leading its implementation:

I think as … the [hospitalist] role matures, the only way you can improve the patient’s outcome is to participate in the system process, because physicians on an individual basis cannot make a huge dent in outcomes … In the past they worked their own way, and you know they do not participate in … process of improvements, and so hospitalists (because this is all they do) … really understand the issues faced in the hospital organization. (C9)

The importance of participating in system improvement and leading interventions that dovetail with hospital strategy was highlighted by key informants, who noted that this was a time of many competing initiatives in the organization. One key informant clearly articulated how this alignment was framed, saying “basically, we are a growing program, and I think that we wanted to show that the hospitalist group has value to the hospital” (C2).
Members of the hospitalist group and those involved with the intervention also took pride in Hospital 6 being the first Canadian site in an American quality improvement intervention. The desire to lead and showcase innovative programs and efforts at Hospital 6 was part of the culture within the group, and key informants expressed pride that “we are doing something that is a bit pioneering” (C4). One key informant described how when MOHLTC observers visited Unit Seven to view rounds and learn more about Intervention C, it was a “big boost in morale” to know that “what we are doing here is being seen out there” (C6). However, as previous sections discuss, there was a disconnect between the enthusiasm of senior physicians and organizational leadership for Intervention C (on one hand), and the change fatigue and pushback expressed by staff (on the other).

4.35 Summary and Update
The above description and analysis sections provide an overview of Intervention C in context, with a consideration of the existing social and program environment in which it was introduced, adapted and implemented.

The period of data collection for Intervention C was September–December 2011. Three years have passed since that time, and an update on the status of Intervention C is helpful for contextualizing the snapshot of case study description and analysis with the present. Through email communication with the physician lead (April 21 and 24, 2014), an update was obtained. Intervention C is still operational at Hospital 6, and it was noted that the intervention has spread beyond Unit Seven to “most medical floors.” When asked about measurable improvements associated with Intervention C, the physician lead noted that there has been variation both with compliance with the program and the number of ALC and acute medical patients who have been involved. The physician lead suggested that
seasonal variance related to staffing and patient composition may play a role in the variation of measurable improvement associated with the intervention. When asked about challenges associated with Intervention C, the physician lead’s response was “buy-in from front-line staff to complete and participate in the project.” (Physician lead email communication, April 21, 2014).

4.36 Conclusion
This chapter presented three detailed case studies of care transition interventions in Ontario. The descriptive case studies detail the intervention itself, the context in which it was implemented, and the implementation process. The case studies include in-depth analysis of the interaction between intervention components and organizational context. The two subsequent chapters bring the theoretical framework, presented in Chapter 2, to bear in supporting cross-case and realist analysis. Similarities and differences between cases will be explored, with a focus on how context facilitated or impeded the intervention. This analysis supports the development of realist propositions about the relationship of the intervention to context, as well as a discussion of the implications of this research for theory, policy and practice.
Chapter 5: Cross-Case Analysis

Cross-case analysis is the process of comparing and contrasting across case study analysis (Yin, 2009, p. 156). Eisenhardt (1989) describes how theories can be built from case study research (including cross-case analysis), outlining a highly iterative process tightly linked to data analysis that begins with the development of well-defined research questions that guide data gathering and analysis. However, Eisenhardt also stresses the importance of flexibility, which allows a researcher to take advantage of “serendipitous findings” or shifting research focus, depending on the data (p. 536). This was the case in this thesis, with the emergence of constructs and themes that were unanticipated at the outset of the research. The methodology and approaches chosen had sufficient flexibility to manage emergent findings, but also to order the analysis of voluminous data gathered during case study research.

Grounded theory methodology is one approach to guide the process of drawing theories from case study data. Under this methodology, researchers formulate a research problem or set of questions, specifying some important variables with reference to the extant theoretical literature, while avoiding the development of thinking about relationships between variables and theories. This enables iterative analysis and theory building (Eisenhardt, 1989, p. 536). A grounded theory approach is particularly well-suited to this thesis, given the influence of realist evaluation, which also seeks to use data to build theories. This is contrasted to the traditional research approach, which formulates a hypothesis prior to data collection and analysis.
Given that this was an exploratory study, informed by realist evaluation, case study data analysis was informed by a grounded theory approach. Analysis was driven by research questions, guided by the integrated theoretical framework and supported by theories from quality improvement science, organizational behavior and management. Case study analysis then informed the development of middle-range theories and propositions.

While grounded theory methodology informed the overall approach of data analysis, specific tools were used to support the analysis of large, complex case studies in order to draw out similarities and differences between cases and to support the development of propositions, it is equally important to have specific tools and approaches to facilitate data analysis. Miles and Huberman (1984) outline specific methods of qualitative data display and analysis to provide rigour, clarity and structure to the “messy” process of data analysis. They argue that “one cannot ordinarily follow how a researcher got from 3600 pages of field notes to the final conclusions, sprinkled with vivid quotes though they may be,” and this need to establish detailed analytic methods in published case studies or cross-case syntheses leads them to suggest a variety of analytic moves to enable clear analysis of qualitative data (p. 35). Eisenhardt (1989) elaborated on this, suggesting a number of key steps to guide analysis of case study data. This includes the development of stand-alone case descriptions that include within-case analysis, as well as the selection of dimensions that can be used to look for similarities—or differences—across cases (p. 540). Yin (2009) points out that these analytic moves are important to helping order, sort and make sense of case study data (p. 129).
For this study, the “messy” process of data analysis includes sorting through interview transcripts, observation notes and documents for the three cases, as well as conducting analysis within and across cases. As such, the approach taken was guided by both Eisenhardt (1989) and Miles and Huberman (1984), with the development of stand-alone cases that include description and analysis (presented in Chapter 4) and the use of data reductive devices (such as concept maps) to indicate relationships for in-case and cross-case analysis. These steps were chosen to visualize the relationships between constructs and to facilitate analysis.22

Another data reductive device used in this study is the meta-matrix (see Table 5.1). A meta-matrix is suggested for cross-case analysis as it can take a large amount of data and be used to discern similarities and differences across cases (Miles & Huberman, 1984, p. 152). For this project, categories developed during within-case analysis were incorporated into this matrix to highlight differences and similarities across cases. While there were some similarities across cases, the interaction of the organizational context and the categories differed between cases, and this allowed for clarification of how organizational context influences the intervention.

Table 5.1 summarizes similarities and differences across cases using constructs from the theoretical framework (see chapter 2, p. 70) to discern attributes of context and their interaction with care transition interventions. Also, the role of the particular concept during the three different stages of the pilot interventions that are articulated in the

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22 See Appendix 3 for the data reductive devices developed for this analysis.
theoretical framework (i.e. introduction, adaptation and implementation) are identified when possible.

*Table 5.1*

Meta-matrix of contextual enablers and barriers to care transition interventions for cross-case analysis

<table>
<thead>
<tr>
<th>Attributes of context</th>
<th>Categories</th>
<th>Intervention A</th>
<th>Intervention B</th>
<th>Intervention C</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>External factors</strong></td>
<td>Strategic use of pilot funds</td>
<td>Leverage initial funding source to gain buy-in</td>
<td>Leverage pilot funds</td>
<td>Leverage existing funds</td>
</tr>
<tr>
<td></td>
<td>(introduction and adaptation)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physician remuneration to support leadership</td>
<td>Alternate Funding Plan, Ontario Ministry of Health and Long-term Care (MOHLTC)</td>
<td>Salaried Family Health Team (FHT)</td>
<td>Hospitalist</td>
</tr>
<tr>
<td></td>
<td>(introduction and adaptation)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Alignment with government strategies</td>
<td>Intervention goals align with government priorities</td>
<td>FHT structure echoes government priorities</td>
<td>Organization strategic changes reflect government priorities</td>
</tr>
<tr>
<td></td>
<td>(introduction and adaptation)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Teamwork and culture</strong></td>
<td>Leadership</td>
<td>Paradox of physician leadership</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(adaptation and implementation)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cultural shift</td>
<td>Clash between acute care and community care</td>
<td>Tension between acute care and community care</td>
<td>Culture in transition, change fatigue</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational structural characteristics</td>
<td>Team culture (adaptation and implementation)</td>
<td>Interprofessional culture (adaptation and implementation)</td>
<td>Organizational complexity &amp; collaboration (adaptation and implementation)</td>
<td>Existing quality infrastructure (for collaboration) (introduction and adaptation)</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>---------------------------------------------</td>
<td>-----------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------</td>
</tr>
<tr>
<td>(adaptation and implementation)</td>
<td>community care sectors</td>
<td>sectors</td>
<td>Interprofessional culture</td>
<td>Social pressure to collaborate</td>
</tr>
<tr>
<td>Forming a new culture</td>
<td>Nascent</td>
<td>Tension around professional scope &amp; integrating new professional role</td>
<td>History of competition across organizations</td>
<td>Incentives not present to formally collaborate</td>
</tr>
<tr>
<td>Existing team culture (negative)</td>
<td>Intervention as frontline burden</td>
<td>Poor external information exchange</td>
<td>History of informal collaboration</td>
<td>Incentives not present to collaborate</td>
</tr>
<tr>
<td>Existing team culture (positive)</td>
<td></td>
<td>Intraorganizational competition, no external collaboration</td>
<td>Incentives not present to collaborate</td>
<td>Incentives not present to collaborate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Poor external information exchange</td>
<td>Incentives not present to collaborate</td>
<td>Incentives not present to collaborate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Social pressure to collaborate</td>
<td>Incentives not present to formally collaborate</td>
<td>Incentives not present to collaborate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Incentives not present to formally collaborate</td>
<td>Incentives not present to formally collaborate</td>
<td>Incentives not present to formally collaborate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Few relationships, historically fractured</td>
<td>Incentives not present to formally collaborate</td>
<td>Incentives not present to formally collaborate</td>
</tr>
</tbody>
</table>

| Management tools                        | Staff education & training as improving patient care | Supportive team | Frame intervention as improving outcomes to get front line buy-in |
The following section details findings from the cross-case analysis and expands on the meta-matrix presented in Table 5.1.

### 5.1 External Factors

External factors related to the Ontario policy context played an important role in facilitating the introduction and adaptation of each intervention, and they created substantial barriers to the spread and sustainability of the pilot interventions. Features of the policy environment, such as funding, health system strategies set by the MOHLTC and regulatory norms are influential at the organizational level. The features of the policy environment are important for the role that they play in supporting, or blocking, the innovations and changes introduced by the care transition interventions in each case study.

The following three subsections will explore the specific contextual policy attributes that enabled the introduction and adaptation of the interventions. Alignment of the intervention with existing government strategy, efforts to secure pilot funds and methods
of physician remuneration were found across all three case studies. Within each of the subsections on external factors, a shared theme is seen around how the broader policy context acts as a barrier towards embedding meaningful change and sustaining the innovations introduced through the interventions. While there are many pilot projects of innovative change practices and processes, the overall Ontario health system is change-averse, and it has powerful stakeholders and embedded interests making it a difficult environment in which to embed change. These challenges are discussed throughout the cross-case analysis and are an important finding across all three cases.

The section will close with a brief discussion of a finding that was not accounted for in the theoretical framework: the initial enthusiasm over adopting interventions from abroad that were considered to be innovative change practices. This is an important shared feature of Ontario’s health care culture, and it played an important role in facilitating the introduction of the intervention in all three cases. It also demonstrates the power of policy barriers when it comes to sustaining change efforts, as there was strong leadership and support for change efforts in the interventions studied, but they ultimately were insufficient to mitigate the barriers to change that exist within Ontario’s health care system.

5.1.1 Alignment with Government Strategy
Alignment with provincial government strategy was particularly important for Intervention A, which received funding from the MOHLTC for physician salaries and from the LHIN for staff salaries and other intervention costs. Documentation developed by the Intervention A project manager for funders explicitly outlined this alignment (see Table 4.3). Detailing the degree of strategic alignment was advantageous for Intervention A and government funders, because both parties had a keen interest in the potential scaling up of
the intervention model across the province. In fact, one condition of funding from the MOHLTC and LHIN was the development of a so-called toolkit that could be used to inform the design of a similar intervention in other settings (A5). As a key informant explains:

I always wanted it to be developed as a scalable model. I think it is a scalable model. I think every aspect of it could be replicated anywhere in Ontario or Canada ... I mean you can pick the whole thing up and put it in [HOSPITAL NAME REDACTED] so long as you give them a room and they can do it. (A8)

This served the goals of the intervention leads, who work in an environment where the major motivators are described by one key informant as “fame and prestige” (M8).

This focus served the government’s goals, too, and key informants described the pilot as being a means of testing innovation without having to make large-scale policy changes (which, in Ontario’s publicly funded health care system, are complex, value-laden and politically risky):

But you know, speaking in a macro sense, there has not really been much explicit policy around these kinds of things. I think we are now just finding it out through these “pilots” to see, you know, what can be gained, is it cost effective, etc. before we make any big policy changes or other investment in areas. (M3)

Policy informants also noted that Intervention A was quite well known across the province, and that it was perceived as being innovative. It is arguably politically advantageous—and good publicity—for government to be seen as supporting an innovative pilot and collaborating with front-line clinicians to improve health care.

Intervention B also aligned itself with government policy, but its relatively lower resource intensity was noted by key informants, in contrast with the high costs of
Intervention A. Furthermore, the adaptation of the UK intervention into the primary care (rather than hospital) context was highlighted by Intervention B as aligning with provincial priorities to strengthen primary care and integrate new professionals—in this case, the physician assistant (PA)—into practice. Rather than seeking out direct funds from the government to support the intervention, leads strategically used a number of different funding streams to support components of the intervention. In crafting the application for the PA funding grant, however, it was a strategic decision to align it with provincial efforts to integrate PAs into practice:

Writing the grant proposal for the physician assistant—wrapping it around the idea of the [Intervention B] concept with the thought that the physician assistant would actually be the case manager of the [Intervention B]. It is not only to help to figure out what the role of a physician assistant would be in primary care—which is very new to the province. (B1)

Intervention C was more focused on the alignment of the intervention with the strategy of the hospital in which it was embedded; this, in turn, was influenced by strategic priorities articulated by the MOHLTC. The hospital was described as going through a period of strategic renewal and change during the time in which Intervention C was introduced: it was in the midst of releasing its five-year strategic plan, which closely aligned with the provincial focus on patient safety, quality improvement and better integration of patient care. The alignment between the aims of Intervention C and the strategic direction of the hospital were noted by a key informant, who explained “there was a fit with this broader mandate or broader strategy that the hospital was pursuing” (C4).
5.1.2 Securing Funding for Pilots

In an environment where costs and demand are increasing faster than funding, Ontario’s health care provider organizations are struggling with the challenges of finding efficiencies in spending and maximizing value for funds spent. This is why provincial pilot project funds are linked with the overall strategic aim of improving quality and seeding innovation, whilst finding efficiencies and improving value. There are important sustainability concerns associated with the use of pilot dollars to support the interventions, however, as there is little fertile ground to embed the interventions. In particular, there are challenges around longer-term funding, poor integration of hospital and community resources, and physician remuneration that does not support their participation in quality improvement. Despite this, rather than dismantling or addressing these barriers, pilot interventions often exist in parallel to existing processes and are not embedded in practice.

In the context of the three interventions studied, key informants described pilot project funding as the seed which provided credibility and resources to initiate the interventions. The introduction of each case study intervention leveraged seed funds provided by the MOHLTC for quality improvement projects. There were several levers that helped this process. The belief that the interventions were innovative was one lever to securing pilot funding, although the amount of funding and perceptions about the resources of the pilot projects varied between cases. Furthermore, available funding streams were leveraged in order to support the interventions, with alignment of the

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respective intervention’s goals and focus with those of government strategies acting as an additional lever, particularly in the case of Intervention A.

As a result, the intensity and application of resources to the interventions was highest in Intervention A, and significantly lower for both Intervention B and C. In fund raising and grant application efforts, Intervention A leadership highlighted the concept of bringing to Ontario an innovative pilot project that had been anecdotally successful in the UK. Key informants described a process of leveraging off the initial funding source and creating a so-called “bandwagon effect” to secure further funds: “[The bandwagon effect] did give us the ability to ... go to people like the [MOHLTC]—and even the hospitals and the CCAC [Community Care Access Centre 1]—to say ‘the university thinks this is an important idea and is willing to put up money’” (A8).

Intervention B was funded through existing pilot project dollars, bringing together three pilot project funding streams, although the intervention was run through existing resources, which made the total cost much less than for Intervention A. In the words of one key informant, it was a “pilot of a pilot with essentially no extra funding” (B10). Instead, Intervention B leveraged existing pilot projects funds for Ontario Telemedicine Network equipment, and FHT leadership saw a fit between the community matron role from the UK intervention and a pilot project through Health Force Ontario to introduce PAs into primary care. The presence of “demonstration project” funding, adaptable to the intervention, was described as a lever by some informants.(B1)

Intervention C also leveraged MOHLTC pilot dollars, using funds from Pay for Results, a provincial program where hospitals receive financial incentives for meeting emergency
department wait time targets. Unlike the other interventions, however, it did not have specific staff dedicated to it, and pilot funds were used to support the costs of enrollment in a United States-based quality improvement collaborative. Nonetheless, policy informants identified the importance of “seed funding” being available to individuals who are motivated to adapt best practices from abroad. Both the hospitalist group and organization were interested in being leaders in quality, and being the first Canadian site of a US quality improvement intervention was an important signifier of this. However, in a resource-constrained environment, seed funds were crucial.

As a result, all three interventions made use of pilot funding to introduce innovation. The Ontario health care environment lacks a unified approach to change, with few large-scale initiatives to manage and introduce change. The transition intervention pilots were a way to ‘test’ innovative practices on a small-scale, without engaging in the more difficult and comprehensive policy work associated with large-scale change. These pilot funds offered a safe way of testing innovative practices, however as will be discussed in later sections, this also had implications for durability and sustainability of the changes introduced. In the words of a policy-maker key informant:

So, I would say it sort of seems to me the path ... begins from the research and what ... best practices and jurisdictions and what we have been able to do, and then you sort of try to see how you can apply it in your context. You realize some things are going to work and some would not because of existing funding policies and so on, and you cobble something together that is feasible to do within the current ... funding policy constraints. (M1)
5.1.3 Physician Remuneration

In Ontario's publicly funded health care system, physician remuneration is a policy instrument to achieve health system objectives. Physician remuneration comprises a significant portion of government health budgets, and the past decade in Ontario has seen experimentation with various forms of physician remuneration beyond fee-for-service to achieve specific clinical and service objectives. These objectives were apparent in the ways that physicians are paid across the three interventions, and they reflect the context of their practice environment and goals. For example, Intervention A physicians are generally paid through Alternate Payment Funding schemes, which remunerate them based on the many roles beyond patient care that they fill in a teaching-hospital context (roles such as research, education and administration). In addition, per diem funding for physicians was secured for Intervention A on a one-time basis through the Ontario MOHLTC.

Intervention B included physicians who were paid through a mix of salary and capitation, which motivates physicians to provide accessible and comprehensive primary care. A salaried physician is able to take the time to participate in intervention team meetings without the pressures of fee-for-service remuneration (which normally gives physicians an incentive to see heavy volumes and perform clinical procedures). One key informant reflected on the challenges associated with recruiting physicians to similar interventions, highlighting the importance of remunerating physicians for their time participating in quality improvement interventions:

[The] biggest stumbling block [to recruitment] was how do you get physicians involved? ... There is no payment for this [work associated with transitions] and that
is the big one: you cannot engage any physician to do anything if there is no pay for anything, right? (B4)

Intervention C physicians worked as hospitalists, and they received a salary as part of this group. They also were encouraged by management to participate in organizational quality improvement interventions as part of their role. The following quotations from Intervention C key informants reflect on how physician remuneration affects their behavior and their ability to participate in quality improvement initiatives, such as care transition interventions:

We are salary-based, and I think one of the sort of values that we are trying to uphold within the hospitalist group is that we are all going to take on different types of projects and be champions ... you know, within the an area of interest for that particular hospitalist. So, you know, it is under the umbrella of wanting to provide good service and so on, but I guess if you were fee for service, maybe you would have less support. (C2)

To participate ... in every rounds, and to participate in a lot of non-descript meetings, talking on the phone—all these little things are still sort of important ... As you know, [under] fee-for-service, that is what happens, everyone is looking for every little thing you do. You put a dollar value on it, and you will never get ... it just bogs down the system. (C9)

Later sections will discuss the implications of remuneration for physician leadership—an important factor across all attributes of context, influencing culture at the team and unit level, organizational structural characteristics, and inter-organizational relationships and management tools—with particular emphasis on the appropriateness and sustainability of the interventions.
5.1.4 Adapting an “Innovative” Intervention from Abroad

A finding that was not accounted for within the theoretical framework for this project is the broader Ontario health care culture where there is tremendous value given to interventions or practices that are brought from abroad and perceived to be “innovative.” For the purposes of this study (and as part of the theoretical framework), teamwork and culture were considered to be organizational attributes, but an emergent finding across all three cases suggested that adapting an innovative intervention from abroad was an enabler towards the intervention being introduced and implemented. Ontario hospitals are in constant competition to lead, innovate and achieve prominence; adapting promising practices from abroad is one means of doing so. The fact that the interventions from abroad are aligned with government (and, in some cases, organizational) strategy helps to generate buy-in among decision-makers and leadership.

In all three cases in this study, the intervention was adapted from an existing program that was piloted abroad. In each case, physician leads leveraged the perceived “innovative” and “successful” nature of that intervention to support its introduction, secure funding, senior leadership support and team buy-in. In the cases of Intervention A and Intervention B, key informants noted how adapting the intervention concept from the UK was an enabler due to perceptions of this being an innovative approach. For example, the adaptation of a score to predict risk of readmission [the LACE Index] was noted by an MOHLTC informant as an important learning from the UK:

Also, I think that [with Intervention A], they have been enabled by the experience in the UK. That certainly ... provided some ideas for ... the team to structure their care model, but also [because of] the tool, the LACE Index, that has been developed. (M3)
The LACE Index proved to be an enabler, a practice taken from a successful program that was associated with innovation in care.

Bringing a successful concept from abroad to Ontario’s health care system, however, often is discussed with an air of pretension or snobbery, in much the same way that someone might discuss wearing the latest fashions from Europe. By virtue of being from the UK, the intervention adapted for Interventions A and B was seen as somewhat exotic, by health care system decision makers and organizational leaders, and there is a belief that projects from other jurisdictions that have received awards for being innovative provide learning opportunities and best practices. While it is notable that the original, UK-based intervention lacked rigorous evaluation and that reports of its success were anecdotal, key informants comments nonetheless reflected the sentiment that this was a new, promising and innovative initiative:

I actually heard about the [intervention] … when was it? I guess about a year or two before Dr. [NAME REDACTED] actually brought the idea forward … [because] I was scanning literature [and] I saw the stuff. I regularly read some of the British literature, and I am particularly impressed by some of their innovative ways of doing things that are relatively low-cost, and the [intervention] popped up as an idea. (B10)

Researcher: How did you hear about it [the intervention]?

Informant: Actually, I read about it in the Guardian. So, this public health physician [NAME REDACTED] had started this [intervention] in [city name redacted], and he won a couple of awards that were written up in the Guardian. (A8)
There was similar sentiment around Intervention C, which was the first intervention to bring an American quality improvement collaborative to Canada. Key informants described a sense of pride in being the “first” Canadians to participate in the collaborative and to have the opportunity to learn from US hospitals that were already part of the collaborative. Key informants highlighted that within the Canadian hospitalist community, they were seen as innovating and leading for being the first Canadian site in Intervention C, but also that they believed staff morale had been positively influenced by the perception that they were participating in an innovative project:

We had a few people come in here and kind of observe [Intervention C], and ask questions about [it] and observe rounds, the way we do rounds here … I guess … the highlight for [unit name] was the big boost in morale for them, so they are like … what we are doing here, it being seen out there that other hospitals, other organizations are going to adopt [it] … if not some part of it, they see the benefit of it, so that is all certainly helpful for the staff. (C6)

Adapting an innovative practice from abroad as an enabler towards the introduction and adaptation of the intervention thus seems to be related more broadly to Ontario's shared health care culture than individual organizational culture. The following section details organizational-specific attributes of teamwork and culture that influenced the intervention.

5.2 Teamwork and Culture

Care transition interventions led by a medical team represent a cultural shift in medicine, a recognition of the value of care coordination, improved communication with patients, and chronic disease management. This cultural shift was seen both at the individual and unit level across each case study, where it was acknowledged and where issues around
professional scope, roles and responsibilities thrust providers into interventions that altered previous ways of working together. This required negotiation and management of both individual and professional roles across all three cases, at both the individual and group level of various professional groups. This shift will be discussed in the following subsection on interprofessional culture.

The role of the individual physician leader also was highlighted across all three cases, both as an enabler towards the introduction of the intervention and as a barrier to adaptation and implementation. The complexity of the physician role and the paradox of physician leadership is described over several subsections later in this chapter.

5.2.1 Interprofessional Culture
Key informants across all three cases discussed the presence of tension amongst the team around professional roles and scope. In Case A, the core team was comprised of non-physicians, with a rotating physician who had a disproportionate influence on the dynamics and function of this newly formed team. In Case B, there was an existing interprofessional culture that was accustomed to adopting new practices and ways of working, but the introduction of a new professional—a PA—still brought forth interprofessional tensions. In Case C, the intervention was embedded in an existing culture, but this culture suffered from change fatigue, and the intervention was seen as an imposition from physicians and an add-on without adequate support.

5.2.2 Intervention A: Forming a Team Culture
Intervention A brought together a team from across different institutions, and there was an absence of a pre-existing shared team culture. Key informants described the collaboration
of different institutions and professionals in this team as a process where organizational cultures and norms met, and where interprofessional roles were negotiated by providers not accustomed to working together. The strong physician presence was a challenge to other professionals, specifically community-based providers from the CCAC who do not generally work with hospital-based physicians. As one physician key informant explains:

No one had worked together before, and ... so no one really knew ... how that was all going to work. Also, not only had the individuals not worked together, but it was different institutions working together, so I think part of it was that: just getting to know one another, what you are comfortable with, what you are not, what your actual role is. [It was] like the interdisciplinary roles and sort of sorting that out and ... sometimes we can do what other people do, and sometimes we really can’t ... We need to defer to their expertise, so that’s number one, and there were a few issues with team dynamics. Certain people didn’t work out as well. (A7)

There was tremendous external and internal pressure on Intervention A to be a success. The efforts of staff to ensure a successful intervention can be summed up in the intervention’s mission statement: Whatever it Takes. The mission statement was developed by a physician who participated in the intervention. Even though this physician only spent a few weeks attending on Intervention A, their understanding of the its’ goals and mission became the statement that was accepted by non-physicians who worked full-time on the intervention. In fact, one challenge identified by key informants was the presence of rotating physicians on the intervention team and the task of fitting them into the existing team. As a key informant notes, “I mean it works, but it’s not ideal” (A2).
At the same time, physician behavior was identified as an important leadership cue for team in their commitment to the intervention and their willingness to do “whatever it takes” to ensure the intervention was a success:

Well, I think ... we all agree that the fewer physicians ... the better, as far as the intervention is concerned. I think there needs to be some level of commitment on the physician’s part for it to be a success ... because the physician could just tell the patient to go to the [emergency department]. So, I think you ... really need to try and get physicians on board who really want it to work, who are willing to do a home visit on like Friday afternoon. (A7)

5.2.3 Intervention A: Forming a Team Culture

Intervention B was nested within the existing structures and cultural context at FHT 1, an interdisciplinary primary care practice, but the intervention introduced a new clinical role of the PA within that environment. This change to the interprofessional dynamics of the setting resulted in some tension around scope of practice, with some providers describing how the PA role overlapped with that of existing clinicians. However, the choice of a PA was related to funding that could support the intervention, but which was tied to the role. Tensions around introducing the PA role also were anticipated by management, who noted that bi-monthly interprofessional patient rounds provided an opportunity to develop an action plan and sort out where various disciplines and professionals could contribute to patient care. This open communication – along with existing mechanisms to discuss scope of practice among interdisciplinary providers - was seen as a way of dealing with interprofessional tensions:

There is a shared sense in the team that you don’t know everything and you should use your peers to talk it through. This is part of the culture, although strong
personalities are always there, too. And when you feel [your] scope is threatened as a health care professional, you will speak up. This will lead to tension, but also appreciation of various scopes. It is not perfect, but it is starting to get better. (B1)

The existing interprofessional culture in which Intervention B was embedded was a lever to deal with role tensions, with the professionals in this environment comfortable with implementing new or experimental practices, including different approaches to interprofessional practice.

5.2.4 Intervention B: Leveraging Existing Culture

The unit where intervention C was piloted by physician leaders was described as being “ready for change,” but staff were in fact change-fatigued and not open to new processes. The introduction of Intervention C into this context led to a great degree of pushback, specifically from nursing staff. Intervention C discharge planning and care coordination tools were not viewed as a nursing responsibility, and key informants described resentment from nurses about the added “paperwork” associated with the intervention. They considered discharge planning to be the ward clerk’s job:

"We have a ... clerk on the floor—she puts the packages together for discharge with diagnosis, specific info and those kinds of things. It is not a nursing job per se [because] clerks do that anyways. (C1)"

With nurses expected to add Intervention C tools to their existing responsibilities, there were concerns about there being insufficient resources to support the intervention, which they considered to be an add-on to already overburdened clinical staff. Furthermore, the intervention was introduced after a period of significant organizational turmoil, and the change-fatigued staff were not open to changes to practice:
So, I think you have to have the right culture to move a change forward so that people adopt the change, or it is like implementing change management: ... if you do not start in a positive vein and understand what your barriers are going to be and address them ahead of time, you cannot get to an end point. I think [that if] you’re already starting with a negative attitude, you cannot make a positive change. You have to change that first, to get people on board, and you have to make them understand that we are for patient care. (C10)

5.3 Physician Leadership

In all three cases, physician leadership was identified as a critical enabler of the introduction of the interventions. Not only did physicians lead the process of introducing the interventions, they had significant ongoing roles across all three interventions, leading implementation and participating in the day-to-day work. An important lever in enabling this level of leadership and participation was physician remuneration (which is discussed in further detail in subsequent sections.) For example, special arrangements were made in Intervention A to pay physicians to participate in the intervention, while in Interventions B and C, physicians were already paid by salary, and participation in quality improvement interventions was seen as part of their role. Despite this, questions were raised about the extent of the physician role, particularly in Intervention A, the most costly of the interventions studied. Physician leadership was highlighted by decision-makers, policy informants and the physicians themselves as being important for clinical buy-in; however, there were challenges across all three cases around whether other professional roles were muted or inappropriately reduced as a result of the strong physician role and leadership.
5.3.1 Physician Leadership for Clinical Buy-in

Physician leadership was identified by policy informants across all three sites as a critical lever in introducing the intervention. It was described as generating “goodwill” with front-line providers—including nurses, allied health and other physicians—who were described as being motivated to participate in “grass-roots kind of initiatives” with “local leadership and the desire to actually improve care for ... patients” (M3). Physicians also were described as being motivated to lead the interventions because of ongoing frustrations with providing suboptimal comprehensive clinical care. One key informant described how both hospital-based (Intervention A and Intervention C) physicians and primary care (Intervention B) physicians were motivated by clinical experiences of seeing poor transitions of care across settings:

So, it seems to me [that] when you speak with the hospitalist, they want to give the best care they can to people, and they are feeling very frustrated when they are seeing people being readmitted frequently, because it is something they cannot control. They know the best practice is, for example, to provide a structured electronic discharge summary and to get it to the next provider in a short period of time, but they cannot make it happen because they do not always know who the next care provider is. They do not have a system in place to help them do that. They do not have the tools, and when you speak with a primary care physician, they are as frustrated to find that their patients are coming multiple times into hospital that they do not know about that until sometimes quite a [long time] after the fact. So they are both [frustrated], I think, in all the settings of care: front-line providers are feeling frustrated that they cannot give optimal care when they want to ... and that they're not seeing optimal outcomes that they want. (M1)
Physician leadership was seen as an important factor in gaining credibility for the interventions. Traditionally, interventions around transitions of care have been nurse-led, and components are generally related to non-acute aspects of health care (such as patient education, discharge planning and post-discharge communication). Having physician leadership on an intervention that was perceived as targeting care usually delivered in the community by primary care or other providers, gave legitimacy and credibility to the intervention's importance, particularly in Ontario’s health care system that is geared towards providing high intensity medical care for acutely ill patients.

5.3.2 Paradox of Physician Leadership

While physician leadership was indeed critical in gaining credibility for the intervention and its introductory phases, it became increasingly problematic across all three cases as the intervention was being adapted and implemented. A paradox emerged in this study whereby physician leadership was identified by key informants as a critical enabler to introducing the intervention and bringing legitimacy, but also as a major liability in the adaptation and implementation of the intervention. This was largely because of physician costs and their medical orientation to care transitions, which are perceived as having many non-medical, social components. These concerns also highlighted challenges in sustaining an intervention with such heavy physician involvement: strong physician role seemed to be a disincentive for other professionals to lead (and participate in) the interventions to their full scope of practice. As such, questions were raised across all three studies about the appropriateness of physicians leading these interventions, when other health care professionals (such as nurses or social workers) may be more suited to the task and have traditionally led change efforts or interventions in this area.
This paradox was particularly evident in Intervention A, with one key informant describing the physician role as “overkill” and “not very sustainable” due to physician remuneration costs (M4). Furthermore, non-physician clinical members of the team reflected on whether physicians were appropriate in this role:

Well, the message I get here [Intervention A] is that my role is just not as important ... and I mean I cannot say [why that] is, because I think that there is a role, but it ... has been played down, and I think it is because we have such strong physician support on this team. I think that my role would be much bigger if that was not the case, but it is the case. (A6)

Intervention B key informants reflected on the physician role, noting that in the absence of remuneration incentives, it was difficult to get hospital physicians who are paid fee-for-service (unlike the salaried FHT physicians) to participate in Intervention B:

I think that we are fortunate within primary care to have a whole team working on it, and not to be based on a ... [a fee-for-service] model, so that has been a big relief. I certainly still continue to struggle [with] how to be remunerated for the work I am doing at the hospital, because the hospital is fee-for-service ... we found a way around getting contracting dollars for some of the work I am doing there, but it has been a continual [struggle] ... having to renegotiate funding just from the physician perspective, because I am not an employee of the hospital. But I do work in the hospital, and it is not patient face-to-face encounters: it’s phone calls and consultations with the nurse that is all very much away from the traditional model of how a physician is remunerated. (B4)

While physician leadership also was a key lever in introducing Intervention C, physician key informants describe challenges in disentangling physician leadership from the intervention itself, with some expressing concern that—given such heavy physician involvement—allied health providers did not feel a sense of “ownership” or interest in the
intervention. In fact, physician key informants felt it was difficult to sustain the intervention in their absence. For example, with the hospitalist group working on a rotating schedule, hospitalists who led the intervention would rotate in and out of the unit, leaving the unit without a hospitalist lead who was present. As one key informant explains:

So, certainly for [Intervention C], the hospitalist group is now working towards team-based groups, ... having dedicated hospitalists on each floor where ... one hospitalist or two hospitalists can be champions and continue to ... excite people and make sure that Intervention C is happening. I have sometimes found that if I am not on that floor for a few weeks and I come back, ... I feel like we are starting a little bit ...[of a one step forward,] one step backwards-type of process. (C2)

5.4 Organizational Structural Characteristics

The previous section on teamwork and culture included an analysis of the individual and unit-level attributes of context and its interaction with the intervention. The following section on organizational structural characteristics focuses on the meso-level issues, specifically on the role that organizational contextual attributes played in the initial introduction of the three interventions. It also will consider how those characteristics shaped the subsequent adaptation and implementation processes.

5.4.1 Inter-relationships

Transitions of care occur across different providers within the Ontario health care system, which the 2012 Drummond report described as “not really a system” noting that “what we have a series of disjointed services in many siloes” (Commission on the Reform of Ontario’s Public Services, p. 17). Care transition interventions act as a bridge across silos in this poorly integrated system, facilitating the building of relationships between providers who care for complex patients. The context of these relationships—and the types of
relationships developed through the intervention—differ across cases, and they are rooted not only in the nature of the intervention itself, but also the history of collaboration and cooperation (and lack thereof) between the organizations involved.

There is an absence of formal incentives for organizations in Ontario to collaborate on patient care. Each case within this study, however, demonstrates how other factors—notably the presence (or absence) of historical relationships—can influence the development of collaborative relationships between organizations. In particular, cases A and C illustrate how the external policy environment related to funding and accountability relationships for hospital and community organizations does not incent collaboration in patient care. While organizations had some degree of formal and informal collaborations in place specific to the intervention, the case studies also illustrate the strong role that policy levers (such as privacy legislation, separate funding flows to hospital and community, and a lack of shared accountabilities for patient care) exerted on the ability of organizations to truly provide collaborative care.

Intervention A was a novel collaboration between university-affiliated hospitals that traditionally competed for reputation, resources and talent. The development of this collaboration was seen by key informants as another innovative feature of Intervention A, which added to the pressure for the intervention to succeed. However, given the absence of a history of collaboration between the organizations or any formal structures that would enable such collaboration, questions were raised about how to sustain the intervention in an environment where such collaborations are not the norm. Ultimately, challenges to collaboration were readily apparent in the barriers towards integration of care across these organizations, such as the inability to share patient information and data between
providers affiliated with different organizations all caring for the same patient as part of the intervention.

For Intervention B, a history of informal collaboration was described as an enabler. Nested in two organizations that had—by virtue of geographic proximity and physician boundary spanners—a long history of working together, Intervention B was marked by being facilitated by these pre-existing, informal relationships. In fact, due to the familiarity and strong working relationship between the two organizations, there was an absence of formal documents outlining the collaborative intervention. This was in marked contrast to not only Intervention A, but also Intervention C, which was shaped by a complete lack of inter-relationships between its collaborators. This, in turn, lead to an absence of community collaborators and a lack of engagement with primary care physicians in the community.

5.4.1.1 Intervention A: Formal Collaborative Structures
Intervention A was developed as a formal collaboration, with clear governance structures and a Memoranda of Understanding outlining the collaborative relationships between and across participating organizations. While collaborative initiatives around research and patient care between hospitals and community organizations had occurred previously, key informants described an environment that had seen few formal, cross-hospital collaborations of this extent (e.g. with both research and patient care components). This absence of collaboration was rooted in a history of competition between university teaching hospitals, and the impetus for creating Intervention A as a formal collaboration and separate entity from each of the partner organizations was described by one key
informant as being a way for historically competing organizations to feel a shared sense of ownership, with an equitable “distribution of leadership and credit.” (A12)

Moreover, key informants described how other teaching hospitals were motivated by the competitive environment to join the intervention after the initial collaboration was established. This is consistent with the so-called bandwagon effect that has been observed in other examples of diffusion of innovation in health care (Denis, Hebert, Langley, Lozeau & Trottier, 2002, p. 65). In particular, key informants described a sense across partnering hospitals of wanting to participate because others were doing so, with one key informant bluntly stating that “everybody wants to be part of it” (M8).

In spite of rhetoric about collaboration, translating that into the actual integration of services and providers proved to be challenging. For instance, while the intervention was intended to provide comprehensive care for the patient as they transitioned from the hospital back to community, there was no one central database or source of information about the patient. Privacy laws prohibit hospitals from sharing patient information, and as such, providers affiliated with each of the collaborating organizations accessed their own information sources and systems. There was, however, no integration between systems. While this has implications for the ability of teams to manage patient care, it also speaks to a broader disconnect, where integration of care is impeded by privacy barriers. In the words of one key informant:

There are issues around custodianship, and you do not probably need to know more about that, but [legally] ... the record has to be owned by one of the hospitals, so we cannot actually create a single record for a patient who is going from Hospital 2 to Intervention A to CCAC. There has to be a CCAC record and a Hospital 1 record ... do you see what I'm saying? (A12)
5.4.1.2 Intervention B: Informal Collaborative Structures

Intervention B leveraged existing relationships, particularly the collaboration between Hospital 5 and FHT 1, to support the intervention, with physicians acting as boundary spanners. This was an informal collaboration, with less impetus for organizations to develop a more formal relationship. Two different streams of the intervention aligned with the mandates, capacity and goals of the hospital and FHT 1, leveraging their existing roles, relationships and resources to facilitate the informal collaboration. As one key informant explains:

You know, we kind of went into this hoping that we would all be collaborators—the hospital, CCAC and FHT—and I think over ... time it becomes more and more clear that the people have different agendas and have different priorities in different areas that they have to put their interest in. (B1)

Similarly, existing informal relationships were already in place with CCAC providers, and the intervention was able to leverage existing relationships and make the case for further collaboration. Key informants pointed out that the intervention provided a platform, both for strengthening these relationships and for articulating the benefits of improved communications and integration between FHT 1 and community providers for patient care:

I think just the fact that [for Intervention B] we are all working together now for the good of the patients. I mean, we realized that we need CCAC; we need the coordinators in the community. The CCAC realized that they need us [FHT] because we can facilitate doctor’s appointments, and we can actually be there on the days that they do not see the patients. We can be their ears, if not their eyes. (B9)
5.4.1.3 Intervention C: Building Fractured Relationships

Intervention C was entirely hospital-based, with no external partners, and it focused on improving processes related to transitions within the hospital that could help reduce readmissions. However, key informants suggested that hospital improvement efforts were undermined by poor relationships and communications with external care providers (such as family physicians). The absence of effective communication with family physicians was grounded in a history of family physicians in the community relinquishing care for hospitalized patients en masse and the development of the hospitalist program to fill the gap left by their absence. As such, outreach efforts for Intervention C involved sending a survey to family physicians around communication preferences in order to not only get some “face-to-face involvement” and engagement with family physicians, but also to try to establish communications between the hospital and community-based providers (C7). Key informants, however, noted that there was no formal plan or budget beyond this survey for outreach to external providers.

Similarly, with CCAC services located outside of the hospital and no formal or informal communication with community organizations, key informants described an absence of levers for communicating with CCAC providers. They recognized that fragmented care and poor communications between hospital and community providers is related to funding flows, which do not incent collaboration. In the words of one key informant:

It is so rigid, and it is siloed. There are too many siloes. I often thought that particularly things like … CCAC and community care … should be under one broad window, under an umbrella. (C5)
5.4.1.4 Meso- and Micro-level Alignment of the Intervention with Organizational Strategies

While the interventions in all three cases aligned with the strategic plans, values and goals of the participating organizations—alignments that served as important levers for securing funding, collaborators and support for the intervention—alignment was also seen at the meso level. This was apparent in how strategic priorities and goals of a unit within a hospital or a group of physician providers dovetailed with those of the various interventions. Across all three cases, it was seen that alignment with organizational strategy was important during the introduction of the intervention and efforts to garner decision-maker support and buy-in, but was not sufficient to ensure sustained support or clinical buy-in.

However, strategic alignment of the intervention to organizational goals was less meaningful to the health care professionals tasked with implementing the interventions. With Intervention A, this strategic alignment was pronounced for organizational decision-makers, and physicians, but less so for other health care professionals. For Intervention B, the strategic goals of the organization influenced the way in which health care professionals worked together and interacted, so the alignment was more readily translated into practice. For Intervention C, the organization was in transition, so while alignment was important for decision-maker support, it did not influence the behavior of non-physician health care professional staff, who were reticent to participate. While strategic alignment was critical for introducing the interventions in all three cases, it was not sufficient to support the sustained implementation of the interventions.

In the cases of Intervention A and Intervention B, which required collaboration between two or more organizations, there was social pressure for organizations to
collaborate on pilot projects that were perceived as being “innovative.” For Intervention C, the alignment between the goals of the hospitalist group and organizational strategy was highlighted by physician leaders as part of their efforts to gain buy-in from organizational decision-makers.

Intervention A’s goals dovetailed with the goals of Hospital 1, the organization that provided Intervention A with resources and space in which to operate. The introduction of the intervention was well-timed, as Hospital 1 was in the midst of a strategic transformation, with a focus on new models of ambulatory, outpatient care. The intervention also aligned with the strategic plan of CCAC 1, which focused on providing more intensive care to higher needs complex patients. Similarly, for Intervention B, the strategic plan of FHT 1 aligned with the goal of the intervention, as did hospital objectives for reducing readmissions and emergency department visits.

Intervention C key informants identified how alignment of the intervention with the strategies of certain groups within organization was important. This makes sense within a health care environment where, even though individuals are working within an organization, there are sub-populations and “tribes” that reflect groups of professionals who have their own shared meanings, aims and interests (e.g. hospitalists, nurses). Intervention C’s aims aligned with that of the hospitalist program at the hospital. Key informants made this connection explicit:

We are a growing program, and I think that we wanted to show that the hospitalist group has value to the hospital, and so that in the form of using [Intervention C], that is one way to do it. (C2)
Finally, geographic proximity certainly played a role as a lever for collaboration in both Intervention A and B, and as a barrier to collaboration for Intervention C. For Intervention A, there was a familiarity among the university-affiliated hospital staff, and geographic proximity facilitated the dedication of physicians and other staff part-time to the Intervention while allowing them to remain close to their “home” organization. For Intervention B, the location of the hospital and FHT 1 across the street from each other facilitated a great deal of familiarity between the organizations and the flow of staff between them. Physicians were described as boundary spanners between the two organizations, and the physical space enabled FHT 1 physicians to literally cross the street to attend a meeting, see patients at the hospital, or work closely with hospital colleagues. In contrast, the organizational environment for Intervention C was rather closed off, with little external collaboration between community care or primary-care providers. There were few factors (such as social pressure and boundary spanners facilitated by geography) to encourage collaboration since primary care physicians no longer physically worked within the hospital.

In summarizing this section on organizational structural characteristics, it is useful to highlight how Bodenheimer (2008) frames the challenges that transition interventions are designed to address. Namely, that care coordination for complex patients takes place in a fragmented system where organizations are competing, rather than collaborating:

Addressing the flaws in care coordination is more difficult than the usual quality-improvement work that takes place within a hospital service or ambulatory care site. Improvement in care coordination requires that different health care entities, sometimes working in competition, perform together. Only then can all care be coordinated for every patient every day. (Bodenheimer 2008, p. 1070)
The theme of competition and coordination between organizations—driven by different factors such as funding scarcity, prestige and reputation—were present in the organizational relationships related to the transition interventions in each of the three cases. The development of collaborative structures through the interventions was described as a means of strengthening relationships, particularly given the context of past competition. The different approaches to building these relationships are related to the context of the competition, and they act as levers for collaboration in each case.

The extent of interorganizational collaboration varied across the three cases, and it was related to a number of contextual features of the external environment, including incentives to collaborate, historical relationships and geographic proximity. Contextual features of the organizations (such as goal alignment and the presence of physician boundary spanners) also were levers for interorganizational collaboration during the interventions.

5.5 Management Tools

Previous sections have detailed the role of policy, cultural and organizational contexts, and how they were influential in the introduction and adaptation of the respective interventions. The subsequent section focuses on management tools and highlights a finding across all three cases—that while there was a great deal of enthusiasm related to the intervention concept that assisted its introduction and adaptation, there was limited support for its actual implementation. In each of the three cases, the interventions were pilot projects, funded as a test or trial of new approaches, practices and tools related to transitions of care. Across all three cases there was also pressure for the intervention to be
a success, and an emphasis from intervention leadership on how successful intervention outcomes would be important for the organizations. In spite of this emphasis on a desire for successful outcomes, there were not adequate management tools to ensure the effective adaptation and implementation of the interventions. An absence of change management strategies—described in chapter 2 of this thesis a processes to support and facilitating organizational change at the individual, group or organizational level (Mills 2009, p. 4)—that also would help embed the intervention into the existing processes and roles within the organizations was present. In short, there was a desire for sustained success without adequate support to ensure this would happen.

Management tools and change management strategies attempt to change individual behaviors and support individuals through organizational change processes. However, this is not straightforward, and it can require a range of strategies and efforts. Greenhalgh, Robert, MacFarlane, Bate and Kyriakidou (2004) conducted a systematic review of the diffusion of innovation in service organizations and noted the presence of elements associated with successful implementation including: high quality training materials and time for team-based training, and effective communication and feedback measuring the change (pp. 610-612). Greenhalgh et al. (2004) in particular highlighted the impact of change management efforts on individual behaviors, and the importance of garnering support at the individual level for the implementation and sustainability of change efforts:

People are not passive recipients of innovations. Rather (and to a great or lesser extent in different persons), they seek innovations, experiment with them, evaluate them, find (or fail to find) meaning in them, worry about them, complain about them, “work around” them, gain experience with them, modify them to fit particular tasks, and try to improve or redesign them – often through dialogue with other users. (p. 598)
However, despite the change processes inherent in the introduction, adaptation and implementation of the three interventions in this study, none of them made use of change management strategies. This highlights a lack of understanding of not only the intervention within the context in which it was developed, and how the intervention would interact with the context in which it was introduced. For example, the original UK intervention that was the basis for Interventions A and B only had anecdotal evidence of its impact, and it appears as though some of the successful elements were “lost in translation” to Ontario. In particular, the UK intervention was based in a primary care practice and led by a community matron, a title given to a senior community-based; this individual is well aware of community resources and providers. Intervention A took the UK model and translated it into a hospital-centric model with heavy internal medicine physician leadership, generally physicians who lack expertise and experience working in primary care and the community. Intervention B took the UK model and translated it into a primary care practice, but rather than using an existing practitioner of a senior nurse, a new professional—the PA—was brought in as the central provider for the intervention. This did not facilitate the buy-in or support of other clinicians in the practice. For its part, Intervention C was demonstrated to be somewhat successful when rigorously evaluated, but it was nonetheless designed for the American health care system, and in being adapted to the Canadian context, it lacked the dedicated staff resources to make it a success. Ultimately, the drive – and the related pressures – to make the intervention a success was repeated across each case. The following section will discuss the lack of consideration of how to adapt the interventions within the organizational context in greater detail.
5.5.1 Intervention A: Pressure to Succeed

The pressure for Intervention A to be a success was seen in key informant comments from front-line clinicians, decision-makers and stakeholders, and it reflected a disconnect between the intervention and its adaptation to a new context. This pressure to succeed was related to the intervention's profile within the MOHLTC and the surrounding university medical community, as well as its high cost, which was mostly associated with physician remuneration. The evaluation of the intervention as an RCT, with all stakeholders keen to know the intervention’s result, added to this pressure.

Intervention A was a high-cost initiative, with stakeholders and participants suggesting that the expense – and the uncertain outcome of the intervention – had resulted in elevated attention to the intervention:

We will see what the results look like and if it’s ... cost-effective, generally speaking. It is probably going to be cost-effective for certain segments of the population, and you know we are very interested in seeing the results of it, and if it proves to be successful ... the province will be undoubtedly be considering ... ways for that kind of a model to be more widely adopted across the province. How that's done... it's to be determined, certainly. We are all watching. (M3)

We have done a lot of presentations ... the more you talk it up, the more people are excited and behind it, and it really does help when you've got a project—particularly an expensive project—where it’s going to take several years for an answer. The more people that are on side, the better. So I think that disseminating that excitement has been pretty darn important. (A12)
Nevertheless, the RCT evaluation was an important enabler that helped to garner decision-maker support, making the intervention an attractive project for government. The rigorous evaluations and outcomes are considered important by funders, and outcomes such as readmissions and unnecessary emergency department visits are viewed as political priorities. The prospect of a positive result and the implications of that—that a strong argument could be made to scale and spread Intervention A across Ontario—was a strong incentive for various organizations to participate and lend resources to the intervention, but it also added further pressure for the intervention to succeed.

As discussed earlier, one criteria of MOHLTC funding of the intervention was the development of an Intervention A toolkit that would provide organizations interested in developing a similar intervention with modules to support its’ design and development. Being perceived as a leader in developing new models of outpatient care for complex patients was particularly important to Hospital 1, as the home for the intervention, given its new mission to develop innovative ambulatory models of care.

However, efforts to ensure the intervention was successful did not trickle down to the cultural, front-line context, where there were tensions between physician and non-physician providers about individual roles and participation. Again, this disconnect was seen in the language used by organizational leaders and decision-makers. While one decision-maker key informant said that ensuring Intervention A was a scalable model was “foremost in everybody’s mind at the time that it was being developed” (A12), key informants raised questions about the appropriateness of the design of the intervention, and its associated costs as an important consideration for spreading it more widely:
I think that potentially there aren’t going to be enough general internists to do it and I do not know what the funding model would be. So when we show that this is successful ... there has to be serious discussion about how the physicians are paid and I personally think that in order to do this [Intervention A] right across the province, which I think ultimately would be everybody’s goal, maybe even across the country, CCAC has to be resourced much more effectively. So right now I should not say that ... because I am sitting in a hospital but there is still way too much imbalance between where the care is happening, where the dollars are going. Hospitals are never going to give up the dollars willingly but I think the majority of the work of this model is done by CCAC. I think we have learned that primary care is very open and willing to participate but I am not sure where we are going to find the doctors ... (A12)

Physician remuneration, as discussed in earlier sections, was described as a potential barrier to sustainability. While potential scaling up of the intervention is an important lever for decision-maker support, the same dogged questions around the role of context—the questions that motivated this study—are brought up by key informants to illustrate potential barriers to spread of the intervention, and to highlight the absence of consideration given to change management factors.

5.5.2 Intervention B: Scaling Up

Like Intervention A, there also were strong pressures for Intervention B to be a success, partly due to their shared inspiration (the UK Intervention) and because of some shared leadership connections. One key informant said that the Intervention B physician lead “kept almost apologizing because [NAME REDACTED] is not running an RCT” (M1).

However, the differences between the interventions, particularly the costs and intervention design, were seen as an important feature to contrast with the outcomes of the more costly Intervention A, with one key informant suggesting that FHT 1 positioned its Intervention as Intervention A “lite” (M5). Another key informant said “[Hospital 2] runs a [Intervention A] program that has a budget of a million dollars; we have a budget of nothing, practically my
salary” (B6). Leaders of the intervention described Intervention B as “very easily scalable” within the FHT context (B4).

The focus on scale and innovation is rooted in the history of the FHT 1 where Intervention B took place. Among the first FHTs founded in Ontario, it is an academic practice that prides itself on providing innovative approaches to primary care, interdisciplinary collaboration and chronic disease management—all of which align closely with the aims of the intervention. Leading the development of a scalable care transition intervention to primary care aligns well with FHT 1’s patient care, education and innovation goals. In contrast to Intervention A, there is an absence of structural barriers (such as team composition and physician remuneration) because the Intervention B model leverages existing providers, structures (such as information technology) and interdisciplinary work processes. While key informants suggested that other Ontario FHTs could “with little effort incorporate [Intervention B] into what they are doing now anyways” (B4), establishing a collaboration between an acute care hospital and primary care practice is a more challenging aspect of the intervention. The presence of physician boundary spanners who work in both FHT 1 and Hospital 5 is described as an enabler to establish the “more complicated” collaborations between hospitals and primary care on a transition intervention. As such, the FHT 1 context with both embedded processes that aligned with the intervention as well as physician boundary spanners, had important contextual attributes that facilitated and enabled the intervention to be implemented in a sustainable way.

Nevertheless, front-line clinicians did raise questions about the appropriateness of the intervention design, particularly about the PA role. Although the position was the result
of using PA-specific pilot fund dollars, some wondered if it indeed a PA was the most appropriate health care professional to manage the intervention. However, some key informants also concede that “politics”—rather than considerations of a providers’ appropriateness—played a role in the design of the intervention:

I mean, I am used to it [transition processes] being nurse-led as well, right ... [but] at some point in my working life, I have decided that politics are what they are, and I am not going to struggle with that anymore. (B7)

5.5.3 Intervention C: Sustainability and Spread

In contrast to Intervention A and Intervention B—perhaps because there was stronger evidence to support it—Intervention C was framed by leads from the beginning as becoming the standard of care for patient discharge. As such, the Intervention C rollout was described as being the first phase of implementation; key informants indicated that the second phase will be spreading the intervention to another inpatient floor, followed by broader spread across the organization. However, as noted in the previous sections on culture and change readiness, these changes were occurring within a changed-fatigued organization and staff. As a result, there was an absence of willingness (and readiness) for change.

Staff pushback due to change fatigue was described as a significant barrier to the Intervention C pilot on Unit Seven, and key informants expressed two different approaches to spread given staff opposition to change. One perspective was to use the pilot as a learning experience, with one key informant describing the next phase as an opportunity to “start from scratch, almost” and “not repeat the mistakes that we made on Unit Seven” (C4). However, other key informants argued that rather than continuing to roll out the
intervention beyond Unit Seven it would be important to work towards improved buy-in from staff at Unit Seven. This, in turn, would generate the goodwill necessary for a broader roll-out:

Once you roll out a pilot, you know, you should have gotten to the point in your pilot where it is thought to be well-integrated and acceptable, and you know, well-received. I do not know, but I am not sure if we are there yet, and these complaints about redundancy of work, I worry ... that [there] will be one that would limit adoption. So, if you are rolling it out under force as opposed to rolling it out under, you know, people feeling that they are positively predisposed towards it. (C8)

While they differ in key areas, both perspectives do describe the importance of learning from the challenges of the pilot and addressing internal barriers to roll-out, with a particular focus on levers to engaging staff to buy into the practice change.

5.5.4 Lost in Translation: from Introduction to Adaptation and Implementation

The disconnect between adaptation of the intervention to the organizational context and aspirations for success were seen across all three cases. There was variation around the degree to which change management strategies were needed to consider both methods of integrating the intervention into existing processes of care and ways in which clinicians worked together within and across organizations. Intervention A was not integrated at all with existing patient care processes and work processes of the affiliated organizations; in fact, it was happening in parallel, rather than as a partnership with usual care providers. It was described as an “add-on” to existing processes, and key informants highlighted that both patients and providers often did not understand where the intervention fit within existing processes. The intervention was concentrated on intensive
case management after discharge, but it did not engage the usual care providers of patients—such as primary care physicians and CCAC—in the care it was providing:

There were a lot of times that we were taking the ball from the family doctor, keeping it for a long time and giving it back later, and the problem with that is ... it is not different than a hospital taking the ball for a long time, doing a bit of stuff and giving it back later. You just create a different set of transitional issues again. (A1)

Intervention A clinicians and leaders identified significant challenges in building awareness of the intervention among “usual care” providers, and they recognized that in spite of the teams’ efforts to fulfill the mission statement of “do whatever it takes,” the lack of integration with the rest of the system compromised the intervention’s objectives to reduce readmissions:

There are just still too many points of contact ... even though we give them the magnet and a card [explaining Intervention A and providing contact information]. If the personal support worker comes in and says “what is this? I do not know anything about this. You are not doing so well. I have never heard of this. I am calling your doctor, or I am calling 911,” that is tricky. (A8)

In contrast, Intervention B was embedded in existing care processes. The existing culture and care processes helped to cushion and mitigate challenges of introducing the intervention, facilitating its acceptance and furthering its integration. For example, although staff expressed concerns about the integration of a new professional (the PA) and there were tensions over interprofessional roles and scope, the shared history of innovative interventions and a supportive team culture helped foster a willingness to work on the intervention, despite the challenges:

So, I think really the culture here helps support this project, and that people here really do think themselves as a team. They really do think that these are people who are going to help the patient as a whole, so I think that that helps, because it gives
people an inherent [trust]. There is some trust there, even if it is a new team member; there is some trust that you know this person who is going to [be hired is] part of the team, so until proven otherwise at least. And I think that they are very willing to hear the suggestions across the table and around the table. (B9)

While leadership intended for Intervention C to be embedded as part of practice, it was not accepted by front-line staff, who were change-fatigued and felt unsupported. Staff perceived the intervention as being foisted onto them in the absence of dedicated resources, so while there was tremendous enthusiasm from physician leadership of the hospitalist program to embed the intervention into existing practices, this was not expressed by front-line staff. To them, it was “another” failed pilot in an already change-fatigued organization:

I would say it is like [Hospital 6] to start something and never sustain it: that is the culture. So it will not be surprising to me if [Intervention C] does not continue like that, if somehow it falls off our radar and does not become our priority. That would not surprise me. When something starts here, we never build in a sustainability plan, and every time there is something else, they [leadership] say “okay, but how are we going to sustain them,”—and then, you know, we do not. (C10)

5.6 Cross-case Analysis Summary

The shared and different contextual levers and barriers of the three interventions in this study provide deeper insight into the interaction between intervention mechanisms, context and outcomes. First, at the policy level, the importance of funding to support pilot projects in order to test innovative practices (such as care transition interventions) is an important enabler. In all three cases, external funding for quality improvement or physician-led innovative demonstration projects was an important seed to initiating the interventions. This funding – combined with the cachet that came with interventions that were adapted from abroad and were considered to be leading practices – were important
enablers. Those enablers, however, also reflect a broader health system challenge of sustainability and the approach of introducing pilots in the absence of wider system change and reforms. One clear example of policy barriers becoming problematic during the implementation of transition interventions was how privacy regulation impedes effective working relationships—and, in some cases, even basic communication—between acute and community providers. The instability of pilot funds and a system-wide tendency to test rather than embed innovation was reflected in an absence of change management strategies across all three cases. Key informants highlighted this, noting the uncertainty associated with pilot interventions related to the viability and sustainability of the intervention in the absence—or at the conclusion—of pilot funding.

At the organizational-structural level, the strategic alignment of an organization’s mission and vision with the goals of the interventions was important for garnering support from both organizational leaders and front-line clinicians. The presence of physician leaders across all three cases proved to be important, with these individuals leading the development, framing and implementation of the interventions, as well as being active clinical leaders. Physician leadership was enabled by compensation mechanisms, which allowed physicians to spend time on the tasks required of their leadership, such as administration, attending meetings and so on. While physicians in each case were compensated through different remuneration approaches—mixed funding models for academic physicians at Intervention A, capitation for family physicians in Intervention B and salary for hospitalist physicians in Intervention C—the importance of compensation as an incentive for leadership and participation in the intervention is shared across all three cases. Moreover, physician leadership was seen as part of a cultural shift towards the
increased prominence of discharge planning and care coordination, which had previously been seen as work to be delegated to non-medical providers.

Again, while physician leadership was highlighted across all three cases as an important contextual enabler, there is a paradox associated with physician leadership insofar as the strong physician role led to concerns about the viability and sustainability of the interventions beyond the pilot phase. Questions were raised about the appropriateness of physician (medical) leadership for transition interventions. Physician leadership seemed to crowd out other professionals who may have been more appropriate in a leadership role (and more cost-effective, too). This was particularly notable in latter stages of the interventions: while physician leadership was critical to the introduction and framing of the intervention, staff buy-in and the definition of appropriate interprofessional roles was a major weakness across each interventions during their adaptation and implementation.

Important differences emerged in the cross-case analysis regarding how different organizational contexts influenced the intervention mechanisms. Across all three cases, the history of inter-organizational relationships was apparent, and historical competition, past informal collaboration and working relationships proved to be important determinants of the extent of inter-organizational collaborations. The role of physicians as boundary spanners across organizations also was highlighted as an important lever to collaboration and an important component of past inter-organizational relationships. This varied across the cases, depending on the presence (or lack thereof) of physician boundary spanners. Teamwork and culture, particularly change readiness and interprofessional culture, were found to be notable, with interprofessional and team culture proving to be important barriers (or enablers) to interprofessional communication and coordination. Finally, plans
for the intervention following the initial pilot (e.g. spread, scale, etc.) were an important feature of the organizational context, as they provided incentives for leadership support, front-line staff buy-in and leadership motivation.

The question of management tools—specifically the presence of change management efforts to facilitate the adaptation and implementation of the intervention—emerged as a critical issue across all three cases. Change management efforts were required to ensure that the intervention could be adapted into the context in which it was introduced, that it could mitigate some of the team culture and interprofessional issues that emerged after its introduction. However, the absence of change management in all three cases spoke to a lack of understanding of how the intervention would interact with context; it also foreshadowed the inability of organizational and physician leaders to manage the implementation issues that arose as an intervention from elsewhere was introduced into a new context. In spite of an intervention's alignment with provincial and organizational strategies, the presence of physician leadership and considerable pressure to succeed, the adaptation and implementation processes were problematic, and leaders were ill-prepared to manage the challenges that emerged.

The cross-case analysis thus illustrates how the three interventions faced similar challenges in their introduction, adaptation and implementation of care transition interventions in Ontario health care organizations. The influence of policies and structures—as well as the organizational environment of the intervention—is drawn out through a detailed discussion of how these various attributes of context influence intervention mechanisms. The ability to enact the interventions and enable the theory of change associated with them—namely, that patients who are at high risk of poor
transitions of care will benefit from an intervention to ensure appropriate discharge planning, better communication across providers, and continuity of care—was influenced (and, in some cases, limited) by various attributes of context. Cross-case analysis details how certain attributes of context were facilitative, while others were barriers. The goals of a realist review (such as the one used in this study) are to develop mid-level theories that can answer the central question of “what works for whom, and in what circumstances,” and these theories are developed in the following chapter based on similarities and differences between the cases, some of which have been highlighted here.
Chapter 6: Findings and Implications

In 2008, Donald Berwick, a prominent leader of the quality improvement movement, wrote an editorial for the *Journal of the American Medical Association* entitled “The Science of Improvement.” Acknowledging that measuring the outcomes of quality improvement interventions has been difficult, Berwick describes how quality improvement interventions often are demonstrated to be effective in one organization or context, only to fail to have measurable improvements when studied using quantitative outcome measures in other organizational contexts. Berwick (2008) argues that the “the reasons for this apparent gap between science and experience lie deep in epistemology,” before going on to suggest that the science of improvement needs to consider approaches to evaluating interventions that understand the role played by complexity and context (p. 1183). To do this, he suggests realist evaluation methods as a way of deepening learnings and experience about how the same quality improvement intervention is enacted across diverse contexts. In particular, Berwick notes that the introduction of complex, multi-component interventions into the “complex terrain” of health care organizations is “essentially a process of social change.” He then concludes by suggesting that “the effectiveness of such these systems is sensitive to an array of influences: leadership, changing environments, details of implementation, organizational history, and much more” (p. 1138).

This thesis was inspired by Berwick’s call for new methods of evaluating complex quality improvement interventions, and it has used a realist evaluation approach to perform an in-depth examination of how context influences care transition interventions in Ontario. Chapter 1 provided an overview of care transition interventions and the theory of change associated with these complex interventions. It also outlined the problem of mixed
results and interventions not achieving desired outcomes, and it anchored this in a broader discussion of approaches for evaluating complex quality improvement interventions. Chapter 2 outlined the realist approach to evaluating complex interventions, given the described challenges facing transition interventions both in terms of achieving positive outcomes and in evaluating such outcomes, before introducing the integrated theoretical framework to provide a framework around potentially important attributes of the policy and the organizational context in which these interventions are embedded. Chapter 3 outlined the methods used to conduct the research for this project: rich, descriptive qualitative case studies and cross-case analysis. Those case studies were presented in Chapter 4 to provide a detailed description of the intervention context and mechanisms, as well as an analysis of the interplay between context and mechanisms for each case. Chapter 5 explored some of the similarities and differences between the cases, and provided a detailed exploration of the contextual barriers and enablers that were shared (and different) at both the policy and organizational setting across each of them.

This chapter, the final one of the thesis, will focus on the lessons learned from this thesis. First, in light of the cross-case analysis findings (presented in Chapter 5), the theoretical framework will be revisited. Next, following the attributes of context in the theoretical framework, program theory lessons (or middle-range theories) with a focus on developing context mechanism outcome configurations will be presented. Drawn from context-mechanism-outcome (CMO) statements, the applications of this study to the theory, practice and policy then will be discussed and future areas for research will be outlined. Finally, the limitations of the study will be reviewed prior to closing conclusions and comments.
6.1 Modifying the Theoretical Framework

The integrated theoretical framework expanded upon (and provided clarity for) the definition of social context put forth by Pawson and Tilley (1997), and it addressed some of the critiques of realist evaluation, particularly the lack of guidance and frameworks for researchers undertaking that method of evaluation. The integrated theoretical framework brought together literature from quality improvement, organizational behaviour, management, and evaluation sciences to provide clarity about attributes of context that warrant consideration for quality improvement interventions, such as the care transition interventions described in the three case studies of this thesis.

The theoretical framework was developed prior to data collection and analysis, and while it was useful as a guide in both of these stages, it lacked specificity about the interaction between various elements of context and how they influence specific intervention mechanisms. The theoretical framework (as articulated in Figure 2.2 of Chapter 2) is not fully specified, and does not account for all of the important attributes of context. The initial theoretical framework concentrates on which attributes of context are important while failing to provide an explanation of the relationships between the attributes, or of the relationship between the attributes and the intervention itself. Efforts also were made to balance out the degree of specificity within the theoretical framework about care transition interventions. This was done in order to make it applicable to the study of the interaction of context with other quality improvement interventions.

Since there is a great deal of interest in approaches like realist evaluation within health services research and quality improvement science, the theoretical framework can be adjusted to support analysis of other interventions (Greenhalgh et al., 2009, p. 412;
Two modifications were made to the theoretical framework. The first was the addition of change management and change readiness to the “management tools” attribute of context, as described by Shekelle. Change management literature highlights the importance of organizational factors—such as professional leadership, organizational and team culture—in shaping the organizational environment and facilitating the success of a change initiative, and its addition provides useful insights into how these attributes are connected and interact with the intervention. This was particularly seen in the contrast between Cases A and B, and Case C. For Cases A and B, there was a supportive context for change at the team level, and a readiness and willingness to participate in the interventions. This was contrasted to Case C, where the environment and individuals were change fatigued and staff were not engaged, nor supportive of implementing change processes. Care transition interventions presented changes to practice and processes and such changes require clear strategies and approaches to support staff in adapting to and implementing these changes.

While change management is important, however, it is not sufficient on its own. In particular, this thesis found that the policy environment and policy levers were influential on other contextual attributes, demonstrating that in spite of organizational-level enablers (such as leadership, a receptive culture for change, and change management), policy barriers prevented the spread and sustainability of innovation and change. This is why the second change to the framework was the development of clearer connections between constructs. External factors, such as policy influence organizational-level constructs, as well as the intervention itself. Findings also suggested that organizational-structural
characteristics influenced more micro-level factors such as teamwork and culture and management tools. Developing stronger linkages between such constructs highlights the importance of aligning both policy- and organizational-level strategies and supports to ensure that there is a fertile ground in which to embed changes like care transition interventions. This finding aligns with literature that highlights how external policy factors have been noted as working against internal attempts at change (Scott et al., 2003, p. 114). It also is in keeping with the findings of Tregunno and Ginsburg (2006) on the limitations of management incentives in supporting change initiatives, and that for substantive change with many vested interests and stakeholders (particularly in health care), policy-level enablers are needed (p. 182). For example, while interorganizational cooperation and collaborative initiatives in this study were highlighted as an important facilitator to communication between sectors, they cannot be seen in isolation from the policy drivers that influence these relationships (such as separate lines of funding and accountability). As such, the integrated theoretical framework has been further specified to demonstrate how the various aspects of context interact with each other.
6.2 Realist Evaluation of Context and Care Transition Interventions

As described in detail in Chapter 2 of this thesis, realist evaluation “seeks to unpack the mechanism of how complex programmes work (or why they fail) in particular contexts and settings” (Pawson et al., 2004, p. 1; emphasis original). It does this by asking “what is it
about the program that works for whom, in what circumstances, in what respects, over which duration ... and why” (Pawson, 2013, p. 15). Realist evaluation suggests that these questions can be answered in the form of propositions about the context, mechanism and outcomes of an intervention (known as CMO configurations). Such CMO configurations demonstrate the relationship between constructs in the theoretical framework, described in realist evaluation as middle-level theories. Wong (2009) suggests that for groups of complex health interventions with similar goals (such as care transition interventions), CMO configurations can explain predictable pathways of a program (which are known as demi-regularities):

For any similar group of CHIs [complex health interventions] (e.g. smoking cessation interventions), the myriad of contexts influencing behavior so as to generate outcomes are not impediments to realist review, but act as the “raw materials” from which demi-regularities can be identified. Middle-range theory (or theories) are then sought to explain why these demi-regularities occur. As the review progresses iteratively, theories that “work” (i.e. best explain sets of demi-regularities) are repeatedly tested against the observations reported in each CHI included in the realist review. (Wong, 2009, p. 5)

This study was of three similar interventions that share a similar theory of change across three heterogeneous organizational environments. While case studies provide rich descriptions of specific intervention components, there nonetheless is a shared theory of change across the three interventions studied that indicates patients at high-risk of poor transitions of care will benefit from such interventions. These interventions vary in intensity, form and process, but they generally are comprised of efforts to improve transitions of care through discharge planning, communication across providers, case management and provider continuity (Shepperd et al., 2013, p. 5; Hansen et al., 2011, p.
Given that these interventions were implemented within a shared policy environment but across heterogeneous organizational environments, the cross-case analysis in this thesis looked at how context was facilitative or a barrier for the intervention mechanisms and outcomes. The contextual constraining or enabling factors on interventions within in each case—or shared across cases—that are discussed in the cross-case analysis are depicted in figures used for demonstrating CMO statements (see Figures 6.2 through 6.8).

This approach of articulating contextual constraining and enabling factors has been previously undertaken in realist reviews of complex interventions. In an analysis of large-scale change initiatives at a number of health care providers in inner London, Greenhalgh et al. (2009) developed diagrams depicting the realist analysis approach. These diagrams depict constraining and enabling contexts associated with specific mechanisms, which lead to both successful and disappointing outcomes. In their analysis, Greenhalgh et al. (2009) described the use of contextual constraining or enabling contextual factors to highlight what “appeared to make each mechanism more or less likely to produce a desired outcome in any particular set of circumstances.” (p. 399) This is particularly important for the aim of drawing transferable lessons from the middle-level theories associated with the intervention (Greenhalgh et al., 2009, p. 396). This approach also aligns with the focus of this chapter, which is to discuss the lessons and implications from this study. The diagrams developed for realist analysis in Greenhalgh et al. (2009) were adapted to support the analysis in this thesis (see Figures 6.2 through 6.8) and reflect the context and mechanisms that underlie the desired successful outcomes associated with the interventions (as well as the disappointing ones).
6.3 Realist Analysis

This section opens with a discussion of overall findings from case studies, and then details a realist analysis for each attribute of context from the theoretical framework. CMO statements are developed relating to each of these attributes, accompanied by diagrams for realist analysis. Overall, as described in case studies and cross-case analysis, the three care transition pilot interventions in study were a limited success.

It is important to appreciate the effect of contextual enablers and barriers at various phases of the interventions. Across all three case studies, there were shared levers that facilitated the successful introduction of each intervention, including physician leadership, pilot project funding that aligned with the aims of the respective interventions, and a desire to test promising practices from abroad. None of these levers, however, were without their challenges. Although it was an important initial enabler, physician leadership was problematic, as it led to interprofessional tension and concerns about the appropriateness, cost and sustainability of the interventions. Similarly, while pilot project funds were aligned with the intervention aims (e.g. reducing readmissions and targeting high-cost users of the health care system), they lacked alignment to broader health care system levers and processes. This meant that for two of the cases intervention processes dovetailed with existing transition processes and were not embedded in the health care system. Instead, as a key informant explains, the pilots were experiments and lacked alignment with policy:

But, you know, speaking in a macro sense, there has not really been much explicit policy around these kinds of things. I think we are now just finding it out through these “pilots” to see, you know, what can be gained, is it cost-effective ... before we make any big policy changes or other investment in areas. (M3)
These policy barriers supplanted the initial enthusiasm for the interventions, and drove some of the barriers present at the organizational and sub-organizational context—barriers that were challenges to the successful adaptation and implementation of the interventions. For example, a history of poor interorganizational relationships and a lack of integration between sectors necessary for effective transitions were barriers, as the resulting poor information sharing, inadequate communication and privacy concerns impeded effective transitions. Furthermore, interventions did not dismantle these barriers, but rather circumvented them or operated in spite of them. This meant that vital community partnerships were not forged, and key players in transitions (such as community agencies and primary care providers) were excluded from pilots. At the sub-organizational level, a receptive context to change also was vital: change readiness and an interprofessional culture at the team level that was willing to experiment with new processes. If this readiness for change was not present, case study findings suggested that those tasked with implementing the intervention—front line health care professionals—viewed the intervention as a burden rather than a positive change to improve processes and patient care.

Change management approaches and incentives to support change processes in interventions established a solid basis for change. Case B—which demonstrated the most sustained success in implementing and embedding the changes needed to support the transition intervention—had an alignment between policy, organizational and team-level features of context that were supportive of change. The FHT structure facilitated interprofessional collaboration, and clinical staff had incentives to work with community providers to support patient care objectives. The presence of physicians who were effective boundary spanners between acute care and the community was additionally facilitative, as
were existing relationships with community agencies.

As the experiences of Cases A and C demonstrate, the conditions necessary for successful introduction of an innovation are not sufficient for sustained change—change management approaches and incentives for change are needed. With Case A, there was tremendous leadership and goodwill present to support the intervention, but policy and regulatory barriers meant that rather than embedding intervention processes in existing approaches to transitions, parallel approaches were developed. These excluded primary care providers and community agencies, acting as a temporary patch instead of a sustained solution to improve patient transitions and the processes needed to support them. For Case C, while there was support within the organization for the intervention, this did not include support from front-line providers who were charged with implementing the change processes. Furthermore, a history of poor relationships with community providers and primary care excluded these vital partners from collaborating and participating in change processes. Finally, the change was not embedded in existing processes, and it was not effectively implemented nor sustained. Subsequent sections will provide greater detail on the attributes of context that were enablers or barriers to the interventions.
6.4 External Factors

6.4.1 Pilot Funding

(CMO 1) Intervention leads took advantage of available pilot project funds (C), which aligned with strategic aims of government and organizations (M). These funds enabled the introduction of the interventions by securing funding (O) in a restrictive environment.

(CMO 2) A reliance on pilot project funds (C) meant that interventions were not necessarily embedded (M) in system and organizational processes, and they could not be sustained (O). Interventions that developed parallel processes rather than embedding change were not sustained, without further funding.
A policy lever across all three cases was the presence of pilot project funding for new initiatives—including quality improvement interventions—that was drawn on by intervention leads, and each case study highlights the role of these funds in Ontario’s resource-constrained health care system. Health care provider organizations are struggling with the challenges of finding efficiencies in spending and maximizing value for funds spent in an environment with no new government funding (despite rising costs and demand). Provincial pilot project funds are linked with a strategic aim of the MOHLTC to improve quality and seed innovation while finding efficiencies and improving value. Pilot project funds also are identified as an important “seed,” providing credibility and resources to
initiate the interventions.

While pilot funding is an enabler towards the introduction of the intervention, it also acts a barrier towards meaningful implementation, because there is no long-term vision or funding tied to the pilot interventions. There also were challenges surrounding longer-term funding, poor integration of community with hospital resources and provider incentives to participate in the interventions. Perhaps most notably, rather than dismantle or address these barriers, the pilot interventions often exist in parallel and are not embedded in practice. In Cases A and C, for example, the pilot funds supported the interventions to develop parallel processes around patient transitions rather than ones that were embedded in existing processes. In contrast, Case B also used pilot funds to support the professionals in the intervention, but the intervention was embedded in existing processes.

6.4.2 Physician Leadership

(CMO 1) Physician leadership was found across all three cases (M). This was enabled by payment structures (C) that supported physicians introducing the intervention to senior leaders and participating in the intervention (O).

All three case studies support this CMO configuration, with physician participation and leadership described as a critical lever to gaining initial decision-maker and organizational support for the intervention.
Quality improvement literature highlights the importance of physician or front-line leaders for their role as so-called champions of change initiatives (Ginsburg & Tregunno, 2005, p. 182), and the role of payment incentives in influencing physician’s clinical behavior has been well articulated in the research literature (Scott et al., 2011; Gosden, Sibbald, Williams, Petchey & Leese, 2009; Robinson, 2001; Ferlie & Shortell, 2001). For instance, since fee-for-service payment mechanisms reward physicians for high-volume practices, there is less incentive to undertake the time consuming, face-to-face communications required for care coordination. As Bodenheimer (2008) notes, when hospital and primary care physicians are paid via fee-for-service, neither have the financial incentives to coordinate care (p. 1066). However, there is less clarity in the literature about
physician remuneration in quality improvement interventions.

In this study, payment methods were seen as a critical lever for facilitating physician leadership and participation in care transition interventions: physicians were paid through mechanisms other than fee-for-service in all three cases. Although Shekelle et al. (2011) includes physician remuneration within the “management tools” context that can influence quality improvement interventions, for the purposes of this study, it was considered as part of the External Factors section of the theoretical framework, associated with provincial health policy (p. 694). That is because physician remuneration in the Canadian (and Ontario) health care context is linked to politics and policy: the provincial government reimburses physicians through health care insurance programs and negotiates directly with physician associations on the fee schedule. This has been used as a policy tool to achieve specific service objectives from physicians, and even when organizations pursuing particular objectives (e.g. comprehensive primary care) adopt remuneration mechanisms, they are largely established and negotiated by policy-makers.

There was tension between the crucial role that physicians played in introducing the intervention and their role during subsequent adaptation and implementation phases. This “paradox of physician leadership” is discussed in the following section.

6.5 Teamwork and Culture

6.5.1 Engaging an Interprofessional Team

(CMO 1) Physician leadership was important for the introduction of the interventions, but it was problematic for adaptation and implementation of the intervention by an interprofessional team. Physician leadership and a significant physician role (C) inhibited full participation of other professionals who may have been better suited to the
intervention (M). The poor fit between a strong physician role and an intervention that requires leadership from other professionals (e.g. nursing, social work and pharmacy) was associated with questions about the sustainability of the intervention, and it may have been associated with an inability to improve outcomes (O).

(CMO 2) In health care, physician leadership is an important cultural signal of the importance of a particular issue. Physician leadership (C) garnered important decision-maker and organizational support for the interventions, and it brought attention to issues of poor transitions (M). However, given that transitions are generally managed by non-physician health professionals (such as nurses or social workers), interventions were not integrated into existing processes (O).

Figure 6.5
A realist analysis of Teamwork and Culture – engaging an interprofessional team
Research suggests that non-medical factors—such as patient income, housing and caregiver status—influence transitions of care (Dhalla et al., 2012, p. 64). Across all three case studies, physician-led interventions took aim at managing complex factors that can influence hospital readmission. These factors tend to not involve physicians, whose involvement is usually involved in managing the medical care of complex patients, but a growing recognition that community and home environment is an important aspect of transitions has led to increased physician interest and involvement in this area. As a result, physician involvement and leadership in this area drew increased attention from organizational and MOHLTC decision-makers and prominence to transitions of care.

Physician-led changes to transition processes through the interventions were found to be difficult given the many providers and organizations involved, as well as the complexity of patients and non-medical factors that can influence discharge processes and outcomes. Key informants across all three sites suggested that the physician-led efforts to improve transitions and discharge planning were problematic; those roles are generally considered to belong to nurses and social workers. In fact, as demonstrated in Case B, physician-led efforts to implement transition interventions are more effective when they engage an existing interprofessional team that has a culture that is receptive to change. This was in contrast to Case A, where there was a prominent physician role, but other professionals—including nurses and social workers—questioned whether this was necessary and appropriate, expressing dismay at not being able to practice to their full scope due to a prominent physician role. In Case C, physician leadership was considered to be top-down and inadequate when it came to engaging the nursing staff in designing or defining the intervention, which may have been one factor explaining nurse resistance towards it. Overall, there were non-physician providers across all three cases who
suggested that their skills and training were more appropriately suited to leading the
intervention than the physician. This illustrates how physician leadership is effective when
it heightens prominence and resources directed towards transitions and does not stymie
the role of other professionals traditionally involved in these processes.

6.6 Organizational Structure

6.6.1 Interorganizational Relationships & Relationships with Primary Care
(CMO 1) Organizations that have pre-existing relationships (C) are more likely to
collaborate (M) on care transition interventions, which require cooperation and
communication across organizations to effectively manage complex patients (O).
(CMO 2) The presence of boundary spanners (C) can facilitate working relationships across
organizations (M), but if barriers around communication and collaboration (e.g.
information technology or privacy) (C) are present, then the intervention is less likely to be
successful (O).
(CMO 3) Pre-existing relationships with primary care (C) support effective transition and integration back to the community (M) and patient’s ability to be managed within the community, not be readmitted to hospital or use the emergency department (O).

(CMO 4) If relationships with primary care are not established or present (C), communications about patients and ability to manage patients long term (M) are not present, so patients will return to acute care (O). This potentially can add an additional layer of complexity within transitions.
A realist analysis of organizational structure – relationships with primary care

The degree to which interrelationships and communication to facilitate effective transitions were present in all three interventions was associated with contextual factors at both the policy and organizational level. Policy barriers—including concerns regarding privacy and the sharing of patient information, as well as separate funding streams for hospitals and community providers—created little incentive to collaborate. The aforementioned barriers often are the result of the broader Ontario health care environment, which was described in the 2012 Drummond Report as fragmented and siloed due to separate funding streams for organizations and governance structures that do not incent collaboration or integration. This has resulted in a history of poor relationships
between hospital and community providers, and a subsequent lack of knowledge and relationships with community providers.

In spite of the policy barriers, organizational-level enablers were present in some cases, and were facilitated by boundary spanners who fostered informal collaboration across providers. In Case B, for example, physicians from FHT 1 worked in both the hospital and primary care, and they acted as boundary spanners who could effectively work across both organizations to facilitate improved transition processes. This was demonstrated to be effective when informal collaborative relationships were present and the intervention was embedded in existing processes related to transitions.

In Case A, there were incentives for community and acute care to collaborate, due to MOHLTC and organizational leadership support and buy-in that was specific to the intervention. While there was good collaboration for introducing the intervention, the broader context of interorganizational relationships in which it was embedded demonstrated—through policy and organizational barriers—the ongoing challenges of collaboration. Rather than dismantling these barriers, however, decision-makers and Intervention A leadership circumnavigated them, creating parallel processes that were not embedded in the health care system. An example of this at the policy level is the per diem physician payments developed specific to the intervention. An example at the organizational level is 24-7 telephone service for patients that was established by the intervention. This was intended to be a resource to patients, to be used prior to making a decision to call emergency services or visit an emergency-department. However, since the intervention was not integrated with many of their regular health care providers (such as specialist and family physicians), it was confusing for patients, who were (according to key informants) unsure who to contact and when. Some key informants speculated that the
general approach of the intervention to create ad-hoc solutions resulted in it being an additional layer of complexity in the health care system, and part of the reason why it did not result in improved transitions.

While Case C introduced the intervention into existing processes, an absence of interorganizational relationships and communication was speculated as one reason why the intervention was not effective. Historically fragmented communication and relationships with both primary and community care providers meant that the intervention did not impact transition processes once patients were discharged. While the intervention was embedded into existing processes, these processes were only in the hospital; the inability to communicate and work with health care providers outside the hospital influenced (and impeded) the effectiveness of the intervention.

6.7 Management Tools

6.7.1 Change management

(CMO 1) In the absence of change management tools, the general pressure to succeed—combined with the sense that the intervention was successful elsewhere—was insufficient to motivate and manage change (C), including staff education and training related to new roles and processes. Interventions not embedded in existing processes (M), and implemented and adapted in the absence of change management were associated with weak staff implementation and unsustained pilots (O).
Interventions are change processes in complex environments, but they were generally introduced in the absence of specific change management tools and organizational supports to embed the change. There was an expectation amongst physician and organizational leads that staff would participate in the change process because the interventions had been successful elsewhere, and because improving transitions was an important goal of the organization and could improve patient outcomes.

Case studies demonstrated variations in the degree to which interprofessional teams were ready to undertake the intervention. Across all three cases, interventions required individual providers to take on new roles and participate in new activities and processes related to transitions of care. In many cases, implementing the interventions
involved asking staff to perform additional duties, as well as time-consuming administrative and communication work. The willingness of individuals to do this varied between cases, and it was associated with the presence of incentives and resources, as well as a culture that was receptive to change. In Case A and Case B, pilot funding was used to pay for salaries of staff members to manage and implement the intervention, and this fostered staff roles and training. In contrast, staff in Case C were expected to integrate the intervention changes into existing processes, and there was no additional funding or resources to support the changes. The result of this was staff resentment towards the intervention, which was perceived as an add-on and a burden.

While incentives are important, successful organizational change in health care has been described as “a process that is hard to manage and involves multiple stakeholders who take on different roles at different stages in the implementation process” (Ginsburg & Tregunno, 2006, p. 181). Ginsburg and Tregunno (2006) go on to argue that successful change depends on the readiness of a group or individual to change, a culture of continuous learning, experimentation with innovative approaches to patient care and a demonstrated link between collaboration and improved patient outcomes (p. 181). This was apparent in thesis case studies, where successful outcomes were found when interventions were embedded within organizations that demonstrated change readiness and a culture that was receptive towards experimenting with (and implementing) practice innovations. Change was not found to be successful in environments that were change-fatigued, or where staff were not engaged in the introduction of the intervention and did not feel supported in the roles of implementing change processes that were assigned to them.
6.8 Implications

The above CMO statements—combined with an exploration of how context can constrain and enable care transition intervention outcomes—provide transferable insights related to the interaction between context and intervention. In particular, the implications of the research findings are related to theory around quality improvement science, the body of evidence being generated on care transition interventions, knowledge translation for decision-makers considering transition interventions, and policy recommendations related to care transition interventions.

6.8.1 Theory

Baker (2011) suggests that case studies can inform the development of more robust theory that identifies linkages between problems, interventions and outcomes (p. i33). Through the inductive process of first describing phenomena in case study reports, and then the deductive process of cross-case and realist analysis of the interaction between mechanisms and context, this study was able to suggest relationships between organizational context and intervention mechanisms.

Shekelle et al. (2011) note that while most authorities agree on the importance of context, the evidence base around how context influences quality improvement interventions is minimal, with disparate views on what elements of context are influential and most in need of measurement and reporting when evaluating quality improvement interventions (p. 694). Shekelle et al. (2011) go on to suggest that based on theory and available research, there are four high-priority contexts for quality improvement: external factors, organization structural characteristics, teamwork and culture, and management tools (see Chapter 1, Table 1.1).
The integrated theoretical framework provides further specification about which high-priority contexts are important vis-à-vis the introduction, adaptation and implementation of complex quality improvement interventions. However, the integrated framework also adds to Pawson and Tilley (1997) and their vague description of social context as “the prior set of social rules, norms, values and inter-relationships gathered in these places which sets limits on the efficacy of program mechanisms” (p. 70), particularly by clarifying what constitutes context and emphasizing the relationships between the various attributes of context. The addition of change management to the integrated framework helps to specify how it is not just the presence or absence of these contextual attributes, but the processes by which intervention mechanisms are enacted in context that enabled the intervention to be successful, or fail.

6.8.2 Research: Complimenting Qualitative Research

According to Baker (2011), there is a need for more theory in quality improvement science to close the knowledge–practice gap, and there are few organizational case studies of quality improvement (p. i33). This study addresses that by providing an example of how case study methodology, realist evaluation, evaluation science and theories from organizational behavior can be brought to bear on the analysis of a quality improvement intervention. It also complements the existing research, which is comprised of RCT’s and other mainly quantitative studies to evaluate care transition interventions. This study provides nuance and details, often absent in the peer-reviewed literature, as it describes the complexity of the context in which an intervention is embedded while providing analysis around the relationship between organizational context and the intervention (Ogrinc et al. 2008). Further, the approach taken in this study was used to detail
implementation processes and examine change dynamics over time, addressing a documented limitation of survey or RCT research (Baker, 2011, p. i32).

6.8.3 Knowledge Translation: Questions for Decision-makers Considering Interventions

Important findings from the study and cross-case analysis can be framed as a list of questions that organizational or health-system decision-makers should consider when assessing the suitability of the context for care transition interventions. They also may be relevant for clinicians who are interested in implementing a care transition intervention at their organization. Table 6.1 details the study key findings and provides questions for consideration during the design of any care transition intervention.

Table 6.1
Questions for policy and decision-makers to consider around the design of care transition interventions

<table>
<thead>
<tr>
<th>Attributes of context</th>
<th>Questions to consider</th>
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</thead>
<tbody>
<tr>
<td>External factors</td>
<td>How does funding influence how the intervention will be implemented?</td>
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<tr>
<td></td>
<td>What plans or organizational infrastructure are in place to sustain the intervention beyond a pilot?</td>
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<tr>
<td></td>
<td>Do approaches to funding incent or impede collaboration between different sectors?</td>
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<td></td>
<td>How will physicians be engaged in the intervention?</td>
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<tr>
<td></td>
<td>How does remuneration influence physician behavior and participation in quality improvement?</td>
</tr>
<tr>
<td>Teamwork and culture</td>
<td>How embedded are interprofessional teams and processes?</td>
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<tr>
<td></td>
<td>How do staff manage when new roles or providers are introduced?</td>
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<tr>
<td></td>
<td>Will the intervention introduce changed roles?</td>
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<tr>
<td></td>
<td>How will the organization manage changed roles?</td>
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<tr>
<td></td>
<td>What is the existing team culture?</td>
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<td></td>
<td>How are changes received within this culture?</td>
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<tr>
<td>Organizational structural characteristics</td>
<td>What are the pre-existing relationships between hospital and community partners in the intervention?</td>
</tr>
<tr>
<td></td>
<td>Are there boundary spanners?</td>
</tr>
</tbody>
</table>
6.8.4 Policy Considerations

The study’s cross-case analysis found important shared policy enablers related to the funding and leadership that helped with the introduction of all three interventions. In particular, the presence of external funding to plant the seed for a quality improvement intervention, enable organizational buy-in and supply further financial support of the intervention was apparent. For example, all three interventions were initiated through pilot funding from the Ontario MOHLTC, which was aligned with government goals of testing innovative practices related to key health-system strategies. However, the role of that same pilot funding during implementation of the interventions was highlighted as problematic, with concerns arising about the feasibility of spreading and sustaining the intervention once funding concluded. These also were questions about gaining staff buy-in for the change processes when there was no clear long-term plan to embed these changes.

Another important lever for the intervention was physician remuneration. Policy-
makers have long been aware of the influence of physician remuneration on clinical care and behavior—as well as the importance of physician leadership in quality improvement—but this research provides additional insights into how remuneration can be a lever to physician leadership and participation in quality improvement. Case study findings suggested that physician leadership and participation in the interventions required significant dedication of time to tasks such as administration, attending meetings and communicating with colleagues, none of which are reimbursed through traditional fee-for-service mechanisms. Instead, physicians were compensated through different remuneration approaches: mixed funding models for academic physicians in Intervention A, capitation for family physicians with Intervention B, and salary for hospitalist physicians with Intervention C. These alternate compensation approaches facilitated physician leadership and participation in the intervention across all three cases.

The beliefs held by organizational decision-makers and leaders that intervention processes could be introduced without efforts to support ongoing implementation and lead to change was challenged across all three cases by contexts that were not receptive to change. This is particularly highlighted in the area of transition interventions, because care transition interventions require collaboration and cooperation from various groups, providers and organizations in the health care system. For example, while Case A had tremendous resources and leadership, it ran in parallel to health care system processes and was found to not impact patient outcomes. This is in contrast to Case B, where there were measurable improvements associated with the intervention. Case B however, was embedded in a primary care practice which took on the care of complex patients at risk for readmission, whereas Case A was a short-term intervention designed to provide an intensive level of care to these patients in the period immediately following discharge.
What constitutes a receptive policy and organizational context for change is important.

An important question for policy-makers to consider when assessing new innovations is whether policy levers need to be put in place for the innovation itself, or whether new innovations should be tied to existing practices and processes (rather than new ones). For example, Intervention A was implemented in parallel with existing organizational processes of care in an attempt to innovate and avoid existing system barriers to continuity of care for complex patients. Enabled by policy levers of one-time pilot project funding and one-off approaches to paying physicians, it built up separate processes without engaging the rest of the system. This is in clear contrast with Case B, where the intervention was embedded in the FHT relationships, processes and networks. Similarly, the policy innovation of Case B—introducing a new professional (the PA) with the intervention—was introduced into an existing context that was receptive to change and had processes in place to manage it. For Case C, a change was introduced into an environment that was change-fatigued and did not have the capacity for change. This raises questions about the appropriateness of introducing further change into such an environment—questions that are relevant for policy-makers who are considering how to spread and test innovative practices.

Also a germane question for decision-makers is how to shift organizations away from siloed approaches to care where innovations are introduced in one organization, but not in others. This was seen in Case C, where the intervention was competing with a similar transition intervention being introduced in the community, however these two approaches to improving transitions were not aligned. Not only are there separate lines of funding for acute and community providers that do not incent collaboration, but pilot funds tend to be organization-specific, resulting in parallel pilot projects. An example of a successful lever
for collaboration was seen in Case A, where the Department of Medicine provided seed funding to innovative projects which included a collaborative component. Having a collaborative requirement as part of funding to support quality improvement could improve the situation seen in the case studies where changes were introduced within one part of the health care system, without enabling other involved organizations and providers. This is particularly problematic in the case of transition interventions, which are focused on the patient journey across the health care system and by their very nature require collaboration from various health care system providers.

6.9 Future Research Directions

Care transitions and evaluating care transition interventions has been an area of tremendous research growth and productivity over the past decade, but there still are opportunities to both expand and explore quantitative and qualitative studies on the subject. Future research could participate in the task by complementing this study and addressing some of the limitations presented in the next section.

First, this study did not focus on the micro-clinical level of the intervention itself, and there are areas for qualitative study around both the patients and the providers involved in care transition interventions, particularly with regards to the realist question of “what works, for whom and in what circumstances.” Qualitative research has been undertaken around clinician’s views of improving transitions of care (Jeffs, Lyons, Merkley & Bell, 2013), and patient perspectives on care transition interventions (Coleman et al., 2006), but these studies have been focused on one specific intervention rather than comparing and contrasting across several. This study, however, reveals that while the interventions studied shared mechanisms, there were varying degrees of success when it
came to influencing patient outcomes and embedding change. Furthermore, although the studies operated in three different organizational contexts within a shared policy context, key informants spoke of the heterogeneous patient populations served by each of the organizations. As such, a study sensitive to intervention attributes that are best-suited to specific patient populations is merited.

Qualitative research also can add value in studies of care transition interventions by delivering important insights into which components of care transition interventions reliably and consistently reduce readmissions (Hansen et al., 2011, p. 526). Meta-analyses and systematic reviews have aimed to isolate which particular mechanism within the intervention bundle consistently improves outcomes, but have had no conclusive findings (Mistiaen et al. 2007; Chiu & Newcomer, 2007). By applying a realist framework to ask “what works for whom and in what circumstances,” this study suggests that it is not only intervention mechanisms that facilitate outcomes, but the environment in which these interventions are taking place. This study is a first step, as it establishes important contexts to consider. Ovretveit (2011) notes that these questions are important to better understand how quality improvement interventions interact with different contexts:

Taxonomies of improvement interventions and context influences are underdeveloped and the lack of a common language is hindering scientific progress. At present, researchers have little guidance from previous research about which aspects of context to document, and there is possibly an assumption that all types of QI [Quality Improvement] are equally affected by the same type of context influences (pg. i21).

Ovretveit (2011) goes on to suggest that there is a need for “theoretical research ... to produce groupings of QI [Quality Improvement] interventions according to which aspects
of context are important for their implementation and which are different from other groupings.” (pg. i22) The components of a supportive context for change, as well as the intervention mechanisms which are most effective within that context is an area for further exploration, both related to transition interventions and to other quality improvement interventions.

Another aspect of research around care transition mechanisms is comparative effectiveness research around the roles of various professionals leading the interventions, both in terms of costs and outcomes. Naylor (2008) notes that generally care transition interventions are nurse-led, but this study highlights the importance of physician leadership and participation, particularly during the introductory phase of the intervention. Carving out a physician leadership role in care transition interventions while trying to manage some of the interprofessional tensions that result (particularly given that these interventions have traditionally been the domain of non-physician professionals) merits further study. Efforts to ensure that all team members are working to their scope of practice and are adequately engaged in the intervention deserves further analysis, and it would lend itself well to qualitative research methods and questions about implementation of quality improvement interventions. This could dovetail with existing work on the composition and roles within health care teams and what comprises an effective team that can deliver interventions.

Lemieux-Charles and McGuire (2006) review and examine attributes of effective health care teams and note that a consideration of the context in which teams are embedded is important. They propose the ITEM (Integrated Health Care Team Effectiveness Model) to conceptualize the relationships between team context, structure, processes and outcomes (Lemieux-Charles & McGuire, 2006, p. 267). As noted in the cross-
case analysis, the interventions in this study were adopted from abroad and from different contexts, with the UK intervention that was the basis for Interventions A and B based in primary care, and Intervention C based in an acute care setting. The ITEM provides relevant dimensions of teams and could be used in further research to consider how changes in context affect the roles, processes and types of professionals involved in a care transition intervention team. As highlighted in this chapter, an area for further study is the association between physician remuneration and the extent of physician leadership in the interventions. While the quality improvement literature highlights the important leadership role for physicians in quality improvement, the underlying remuneration incentives are not well-articulated (Weiner, Shortell & Alexander, 1997).

According to an analysis of the 2003 National Physician Survey in the United States conducted by Audet, Doty, Shamasdin and Schoenbaum (2005), when it comes to the role of remuneration in driving physician behavior for quality improvement, “productivity remained the major factor determining compensation; clinical quality was cited as a major factor by less than 10 percent” (p. 851). Audet et al. (2005) go on to suggest that “payment policies that appropriately reward quality or even involvement in QI [Quality Improvement] work should be explored,” (p.851) and while the Canadian single-payer context is different than that of the United States—Canadian physicians are not motivated by market forces—remuneration nonetheless exerts a strong influence on practice patterns and behaviors. Sarma, Devlin, Belhadji and Thind (2010) suggest in their analysis of payment incentives on Ontario family physicians that “because physicians are paid by provincial health ministries in Canada, the form that this remuneration takes can be a formidable tool for influencing physician behavior” (p. 204). One approach to gathering broader data about the connection between physician remuneration and participation in
quality improvement could be physician surveys, which are done at regular intervals in Canada through the *National Physician Survey*. This survey data would provide rich information on the ways in which remuneration incentives influence physician participation in quality improvement. Given that health care quality and safety are MOHLTC priorities, understanding linkages between remuneration and participation in such activities, would be valuable research to policy makers and organizational decision makers.

This thesis highlights a number of other policy-relevant questions that merit further study. In all three cases, funding for the interventions came mainly from MOHLTC demonstration projects across Ontario. This is done with the expectation that some pilots will succeed, while others will fail; in the words of one decision-maker key informant, it is very much a case of “launch a thousand ships and see what seems to work” (M2). However, key informants also borrow from a phrase used by Steven Lewis, who argues that Canada is a “learning-disabled nation” when it comes to health system reform, encountering challenges in implementing large-scale change (Lewis, 2007, p. 19). Cross-case analysis highlights this paradox: while interventions were adapted from abroad by enthusiastic leaders and organizations, the ability of the interventions to become embedded changes was limited by health-system barriers. These barriers—along with other challenges, such as regulatory hurdles and powerful stakeholders —require complex dismantling and policy work to facilitate spread. This includes changes to physician compensation and organizational funding; this will help to reduce siloes and improve integration and communication between the acute, primary and community care sectors. This was summed up best by a key informant who explained “Ontario has a lot of demonstration programs—where we are not so good is at keeping stuff going” (B1).
6.10 Limitations

The limitations of this study can be identified from the criticisms generally leveled against qualitative research, case study methodology and realist evaluation, all of which were used during the course of this study. Common critiques of qualitative research are related to its inability to meet criteria of research validity and reliability common to quantitative research (with reliability referring to the stability of findings, and validity representing their truthfulness) (Golafshani, 2003, p. 599). Translating principles of validity and reliability to qualitative research has been problematic, given epistemological divergence with quantitative research and a positivist approach to research (Whittemore, Chase & Mandle, 2001, p. 523). Nevertheless, Guba and Lincoln (1989) and Yin (2009) use these criteria to assess the “trustworthiness” or quality of qualitative and case study research, suggesting that there is a “need to demonstrate the truth value of multiple perspectives, the dependability of findings amid variability, the applicability of findings to broader contexts, and the freedom from bias in the research process” (Whittemore et al. 2001, p. 524). For this study, the research process was rigorously documented with this in mind. A positivist framework for assessing the methodological rigour of case studies study findings focuses on four tests of truthfulness: construct validity, internal and external validity, and reliability (Baker, 2011, p. i33). The following section will briefly review each of these validity concerns, and highlight how they are limitations of this study, but also what strategies were used to mitigate these limitations.

Construct validity is concerned with identifying appropriate measures for the concept being studied; for case study research, it focuses on the appropriate representation of case studies. Challenges to construct validity for this study are the challenges of appropriately representing the intervention and its context, because the interventions take
place over periods of three-to-five years, but the period of data collection was limited to approximately three months per site. As such, there are challenges associated with appropriately representing the case construct with data collection that takes place over a limited time. Yin (2009) suggests that using multiple sources of evidence, and the triangulation of these sources to develop case studies is one approach that can mitigate concerns about construct validity. In this study, triangulation of data was accomplished by drawing on data from key informant interviews, observations and document review.

Observations and documents also helped mitigate a concern of qualitative interviews related to social desirability bias, where key informants have a tendency to speak favorably about a program or construct. This is a well-known problem in evaluation, particularly for programs that “the whole world already calls wonderful”—programs that have a focus on outcomes that are valued affectively, but which are difficult to study empirically (Williams, McIntyre, Dayle & Raine, 2013, p. 164). The presence of professional belief and support for the program—as well as public perception that the program is important—can present challenges to evaluation that aims to understand the interaction of the program mechanisms with organizational context. This was the case in all three case studies explored in this thesis, as each had tremendous leadership and goodwill, associated with it. Further, a clear explanation of how the data collected was analysed is important to establish a “clear chain of evidence” (Baker 2011, p. i34). That is a test of construct validity which is detailed in Chapter 3 of this thesis. Other tests of construct validity include the presence of peer reviewers of transcripts, which this study endeavored to provide through the presence of two external readers for selected transcripts. However, this study did not go through a full process of inter-rater reliability where external readers read and coded all transcripts and compared coding choices.
Internal validity is another limitation, regarding the ability of a case study to make inferences about phenomena under study, and the concern that not all variables have been observed (Yin, 2009, p. 43). This is again related to the brief period of data collection at each case study site, and the presence of one researcher in collecting case study data. However, strategies were used in order to frame the variables that were most important to observe. Baker (2011) describes a strategy of “theoretical triangulation” to mitigate internal validity concerns – that is, to bring different theoretical lenses and bodies of research as a framework for interpretation, to enhance internal validity of case studies (p. i34). This study developed a theoretical framework that drew from literature on organizational behavior, evaluation and quality improvement science to support internal validity.

Another limitation of this study’s approach is related to the external reliability – and whether they can be generalized beyond the cases studied, with the depth and detail of a qualitative study lacking representativeness to other sites (Shi, 1997, p. 140). Yin (2009) notes that criteria for assessing the quality of empirical social research can be applied to case study research, providing methodological guidance around how research tactics can mitigate or respond to these concerns. While replicability is not the aim of qualitative research, Yin (2009) emphasizes that case study research procedures should be rigorously documented for the purpose of demonstrating reliability of the study method. As such, detailed descriptions of the research process for this study are outlined in Chapter 3.

Nonetheless, this study draws from a limited sample of three case studies of organizations located within Ontario, Canada, and this raises questions about generalizability. However, in this thesis, the detailed study of a few information-rich cases in this study is by design, with the aim of understanding the interplay between care
transition interventions and organizational context, and as a response to the stripping of organizational context in larger randomized controlled trials of care transition interventions. Patton (1990) suggests that there is a “middle ground” strategy which can help to balance depth and breadth, permitting the reasonable “extrapolation” of study findings in the form of propositions, so that findings are not overly idiosyncratic and irrelevant beyond the case study setting (p. 489). Such propositions were developed for this study in the form of CMO statements. Additional strategies suggested by Baker (2011) for investigating external validity of case studies include cross-case analysis, rationale for case study selection and details of the case study itself. In this thesis, case study selection is detailed in Chapter 3, Chapter 4 provides rich, descriptive analysis of case study context, and Chapter 5 contains cross-case analysis. While generalizability is a common criticism of realist evaluation, which by its nature is context specific, the emphasis on context is what grounds the realist approach and supports the level of analysis it intends to develop. As Greenhalgh et. al. (2009) conclude, “there will be blood on the carpet if stakeholders embrace ‘realist’ evaluations but remain wedded to positivist criteria for assessing the rigor of such work” (p. 414).

In spite of the perspective of Greenhalgh et al. (2009), a limitation of this study is related to critiques of realist approach and its limitations, as well as the practical challenge of conducting a realist evaluation (Marchal et al., 2012, p. 206). Pawson et al. (2005) suggest that such criticisms can be mitigated through a number of strategies, including (a) ensuring the research question is clear about which aspects of the intervention will be examined, (b) drawing upon information that may be informal (e.g. relating to interpersonal relationships and power struggles) and (c) limiting what will be delivered in terms of findings (Pawson et al., 2005, p. 24). In order to address critiques, this study
attempted to follow the suggestions of Pawson et al. (2005) in several ways. While it attempted to follow a realist approach, the integrated theoretical framework provided clarity around which attributes of context would be examined, and the research questions ensured that the study was focused. Using different sources of data, particularly participant observation, was helpful for drawing upon informal information regarding relationships, power struggles, culture and team dynamics, and observations helped to complement interview data. Finally, this study was clear about the limitations of evaluating the interventions given that data collection only comprised a few months of the interventions and took place before outcomes were known. While data included some speculation on outcomes and an update from physician leads on those outcomes, it nevertheless remains a limitation.

6.11 Conclusion
How does context influence care transition interventions? What is the interplay between context and intervention? Mixed results of quality improvement interventions have demonstrated the importance of the interplay of the intervention with the complex policy and organizational context in which it is enacted, and this study is situated within a wider debate in quality improvement science around that issue. Nonetheless, there remains a gap around understanding which attributes of context are influential on the intervention, a gap that this study attempted to fill.

Ultimately, care transition interventions in Ontario have provided a rich case study for exploring the influence of organizational context on an intervention. While the interplay between specific attributes of the policy and organizational context and the care transition interventions that are introduced into them has been neglected within the literature, this
study suggests that there are important features of policy and organizational context that influence not only the introduction, adaptation and implementation of such interventions, but their outcomes, too. The enthusiasm demonstrated towards these interventions by researchers, clinicians and decision makers has been dampened by poor outcomes. However, insights from this study can potentially provide these stakeholders with tools and strategies to establishing a fertile policy and organizational context in which such interventions can be implemented, and sustained, and deliver on the promises of improving patient outcomes during transitions of care.
References


Foy, R, Ovretveit, J, Shekelle, PG et al. (2011)”The role of theory in research to develop and evaluate the implementation of patient safety practices” BMJ Quality & Safety 20:453-459.


Jepps, L, Lyons, RF, Merkley, J, Bell, CM (2013) “Clinicians’ views on improving inter-organizational care transitions” BMC Health Services Research 13(289)


Appendix 1

Research Protocol (April 2011)

Karen Born, PhD Candidate, Health Services Research

Department of Health Policy, Management & Evaluation

Faculty of Medicine, University of Toronto

Thesis committee: Ross Baker (chair), Louise Lemieux-Charles, Water Wodchis

Doctoral Dissertation Research Protocol

The Organizational Context of Care Transition Interventions: Case Studies from Ontario

Study Summary:

Care transition interventions have been evaluated using traditional quantitative methods and approaches, such as Randomized Controlled Trials. However, these approaches tend to ignore the role of context in shaping the adaptation and implementation of the intervention. This proposed doctoral dissertation aims to better understand how context influences care transition interventions being implemented in Ontario. This research will utilize a critical realist lens that aims to discern the norms, rules, values and interrelations present in the context in which the intervention is implemented.
Proposed Methods:

- Qualitative case studies of 3 Ontario interventions. Selected sites are
  - (1) INTERVENTION A
  - (2) INTERVENTION B
  - (3) INTERVENTION C

- Individuals from the organizations who are participating in the intervention, either as part of a planning group, or as a clinician will be sent a letter requesting their participation in the research project, with the option of agreeing or disagreeing to participate. Patients and caregivers will not be observed, nor interviewed.

- All case study sites will be de-identified, as will all study participants.

- Participants will be asked to participate in a 30-45 minute semi-structured interview, either in person or over the phone, arranged at a time of their convenience. The interview will be recorded and transcribed by a third party. Participants will have an opportunity to review the coding from their specific interview and provide comments or changes when necessary.

- If feasible, team meetings will be observed by the researcher (Karen Born) and observational notes will be taken.

- Relevant documents identified by the team, and with permission of the team, will be reviewed.

- Data will be coded and analysed for emerging themes using grounded theory methodology.

- Data will be analysed and developed into case studies for each respective intervention. Case studies will focus on the context in which the intervention is implemented, and the norms, rules, values and interrelations present. Organizational relations and organizational culture theory will be used as sensitizing concepts in the analysis.

Expected Impact and Potential Benefit for the Participating Sites:

Some may find the interview to be an opportunity to reflect upon their time working on the intervention, however the interviews will be structured and follow an interview guide to ensure that the interview is focused. There are no other benefits to staff in participating in the interviews and observation. There will be a small inconvenience of staff time, as interviews will require a one-time commitment of 30 to 45
consecutive minutes. Staff will be accommodated as much as possible by scheduling interviews during off-hours, or over the phone, as needed. There may be a greater burden of time for the site leads and administrative coordinators, as they will be identifying relevant documents and coordinating logistics with me.

It is my aim that my research will collate staff’s insights gathered during participant observation and interview sessions into rich case studies that will contribute to the literature around care transition interventions and offer a nuanced perspective on the contextual barriers and enablers of these interventions. A report that outlines the general findings will be prepared for the intervention team. I will also offer an information session at each organization to discuss my findings for those who are interested.

**Study timeline:**

- Site A: [REDACTED] (January – April 2011)
- Site B: [REDACTED] (May – August 2011)
- Site C: [REDACTED] (September – December 2011)
Consent to Participate in a Research Study

Principal Investigator NAME

Co-Investigator: Karen Born, MSc, PhD Candidate

Department of Health Policy, Management & Evaluation, Faculty of Medicine University of Toronto

Email: karen.born@utoronto.ca

Telephone: (416) 254-7505

Introduction and Statement of Research

Before agreeing to take part in this research study, it is important to read the information in this research consent for. It includes details we think you need to know in order to decide if you wish to take part in the study. If you have any questions, please ask the principal investigator or co-investigator. Your participation in the study is voluntary.

Background & Purpose

The rationale for this study is that care transition interventions are being packaged to facilitate sharing across various organizational contexts, without consideration of organizational factors that influence to these interventions. We want to study how health care practitioners, who are members of care transition intervention teams, perceive and manage these factors. We would also like to better understand the similarities and differences of these complex interventions in different organizational environments, and better understand how contextual factors influence the design and process of an intervention.
Procedures

You are being asked to participate in this study, because you are a member of the INTERVENTION NAME, or you have been involved in the development and/or implementation of the INTERVENTION NAME. Approximately 10-12 individuals from your organization will be interviewed for this study. This study will occur in 2 parts:

The first part of the study will consist of a member of the study staff, spending time at your organization observing meetings of the INTERVENTION NAME team. We will take detailed written notes during the meeting. Meetings will not be audio taped.

The second part will involve a structured individual interview of all consenting team members to be done over a three-month period from September-December 2011. If you consent to participate in a one-time interview, this will take about 30-45 minutes and will be audio taped. However, if you do not wish to be audio taped, detailed notes will be taken during the interview.

During the interview, you will be asked about how you perceived specific factors (such as organizational policies or processes) as being barriers or enablers to the intervention, and how you have adapted or changed the intervention based on contextual factors.

Risks

There will be an inconvenience upon your time, as the interview may take you away from duties related to your work. However, the interview will be conducted at a time convenient for you and depending on need, may be conducted over the phone. The main risk is breach of confidentiality;
however steps to maintain your privacy include de-identification of study data, which will be identified only by a unique study ID assigned to you. A report that outlines the general findings will be prepared for your organization and will be available to you through the lead of the intervention. You can also contact Karen Born (contact information is on pages 1 and 3) to have a copy of the report sent directly to you. An information session will be offered at your organization to discuss study findings for those who are interested.

Benefits

There are no benefits to you in participating in the interviews and observation. However, you may find the interview to be an opportunity to reflect upon your time working on the intervention team,

Alternatives to Participation

You are under no obligation to participate in this study, and you are free to withdraw your participation in this study anytime. Some potential reasons for terminating your participation could be that you do not have time to speak with the researcher. There are will be no negative consequences should you choose to not participate, or withdraw your participation. Participation is voluntary. You may decline to answer any question during the interviews if you choose. You may also decline to be audio taped during interviews, and your consent will be required for such a recording.

Compensation / Reimbursement
There is no compensation or reimbursement for your participation in the study. The Primary Investigator and co-investigator are receiving no compensation for this study.

Confidentiality / access to information

No patient will be identifiable in the dissertation documentation and patient identifiers will not be included in notes and transcripts of meeting observations. Participants will not be asked to identify individual names, places and dates. During interviews, study researchers will ask that no names be used, as there may be a third party transcription service employed. A reputable transcription service will be used, and they will sign a non-disclosure agreement. Transcripts, field notes, and documents will be kept in a locked cabinet, which is in a card-access only, secure space at the University of Toronto. Study researchers will use a list of codes to manage interviews, and your name will not be associated with your interview data. The list of codes will be kept separate from the transcribed interview files, in a locked cabinet, and will be destroyed once my data collection at your organization is completed. Study researchers will not use personal identifiers (ie: the Social Worker) or attributable quotes in any reports or publications. The study site organization will not be identified and a pseudonym will be used in any written reports or publications.

Questions

If you have any questions about this study, please contact Karen Born at Karen.born@utoronto.ca or (416) 254-7505

If you have any concerns about this study, you can contact Dr. NAME REDACTED. You can also contact Professor Ross Baker at ross.baker@utoronto.ca
You can also contact the chair of the Research Ethics Board at ORGANIZATION NAME REDACTED.

Consent

1. I have read this information letter and have had the opportunity to have my questions answered to my satisfaction.

2. I agree to participate in the interviews and I understand that I may withdraw from the study at any time I choose.

3. By signing this consent form, I do not waive my legal rights. A signed copy of this consent form will be provided.

4. Please initial one of the following

________ I give my permission to have the interviews recorded. I understand that I may request to have the audio recorder turned off at any point during the interviews.

OR
I do not give my permission to have the interviews recorded.

__________________________________         ___
Signature of Participant

__________________________________
Signature of Person Obtaining Consent

__________________________________    ____________________________
print name                        Please print name

_______________________________
Date
Appendix 2

Table of Interview Dates, location and times

<table>
<thead>
<tr>
<th>Key Informant</th>
<th>Date/time</th>
<th>Location</th>
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</thead>
<tbody>
<tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>December 13, 2010/2 pm</td>
<td>Key informant’s office</td>
</tr>
<tr>
<td>2</td>
<td>February 23, 2011/3 pm</td>
<td>Key informant’s office</td>
</tr>
<tr>
<td>3</td>
<td>March 1, 2011/3 pm</td>
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</tr>
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<td>4</td>
<td>April 15, 2011/ Time not recorded</td>
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</tr>
<tr>
<td>5</td>
<td>May 25, 2011/5 pm</td>
<td>Key informant’s office</td>
</tr>
<tr>
<td>6</td>
<td>June 29, 2011/11 am</td>
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</tr>
<tr>
<td>7</td>
<td>July 5, 2011/1 pm</td>
<td>Key informant’s office</td>
</tr>
<tr>
<td>8</td>
<td>December 14, 2011/10 am</td>
<td>Key informant’s office</td>
</tr>
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<td>1</td>
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<td>3</td>
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<td>March 22, 2011/9:30 am</td>
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</tr>
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<td>5</td>
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<td>Key informant’s office</td>
</tr>
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<td>6</td>
<td>April 5, 2011/9:30 am</td>
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<tr>
<td>7</td>
<td>April 6, 2011/4 pm</td>
<td>Key informant’s office</td>
</tr>
<tr>
<td>8</td>
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<tr>
<td>----</td>
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</tr>
<tr>
<td>9</td>
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<td>Staff meeting room</td>
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<tr>
<td>10</td>
<td>May 6, 2011/9:30 am</td>
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**Case C**

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<td>November 3, 2011/11 am</td>
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<td>5</td>
<td>November 8, 2011/Time not recorded</td>
<td>Key informant’s office</td>
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<td>6</td>
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</tr>
<tr>
<td></td>
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<td>Location</td>
</tr>
<tr>
<td>---</td>
<td>--------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>7</td>
<td>November 16, 2011/2 pm</td>
<td>Key informant’s office</td>
</tr>
<tr>
<td>8</td>
<td>November 22, 2011/11 am</td>
<td>Key informant’s office</td>
</tr>
<tr>
<td>9</td>
<td>November 22, 2011/3 pm</td>
<td>Key informant’s office</td>
</tr>
<tr>
<td>10</td>
<td>November 29, 2011/3 pm</td>
<td>Key informant’s office</td>
</tr>
</tbody>
</table>
Appendix 3

Sample Cross-Case Analysis Mind Map
Appendix 4

Case Study Pseudonym Guide

Case A: Intervention A
Hospital 1
Hospital 2
Hospital 3
Hospital 4
Community Care Access Centre (CCAC) 1

Case B: Intervention B
Hospital 5
CCAC 1
Family Health Team (FHT) 1

Case C: Intervention C
Hospital 6
CCAC 2