Organizational Learning in Primary Health Care Innovation

FRN #78710

This research was funded by:
The Canadian Institutes of Health Research (CIHR)

With matching funding from:
The Alberta Heritage Foundation for Medical Research (AHFMR)

March 30, 2009

Investigators:
Patricia (Trish) Reay
Ann Casebeer
Karen Golden-Biddle
C.R. (Bob) Hinings

Principal Decision Maker Partner:
Dr. Chris Eagle, Calgary Health Region

Decision-Maker Partnering Regions:
Calgary Health Region
Capital Health
David Thompson Health Region
East Central Health
Interior Health (British Columbia)
Northern Lights Health Region

Principal Investigator:
Patricia (Trish) Reay
Department of Strategic Management and Organization
University of Alberta School of Business
Edmonton, AB
Canada, T6G 2R6

Telephone: (780) 492-4246
Fax: (780) 492-3325
E-mail: trish.reay@ualberta.ca
Organizational Learning in Primary Health Care Innovation

FRN #78710

Patricia (Trish) Reay\(^1\)
Ann Casebeer\(^2\)
Karen Golden-Biddle\(^3\)
C.R. (Bob) Hinings\(^1\)

With collaboration from:
Jean-Louis Denis\(^4\)
Lise Lamothe\(^4\)
Ann Langley\(^5\)

\(^1\) Department of Strategic Management and Organization, School of Business, University of Alberta
\(^2\) Department of Community Health Services, Faculty Medicine, University of Calgary
\(^3\) Department of Organizational Behavior, School of Management, Boston University
\(^4\) Université de Montréal
\(^5\) HEC Montréal

Acknowledgements:

We would like to thank all of our decision maker partners for their enthusiastic and thoughtful participation in this research. Special thanks go to our principal decision making partner, Dr. Chris Eagle and the Calgary Health Region. Our other partners are: Capital Health, East Central Health, David Thompson Health Region, Northern Lights Health Region, and Interior Health (British Columbia).\(^1\)

Our team is also grateful to the people who agreed to be interviewed. They were very generous with their time and provided wise input, from which this research has benefited tremendously.

Finally, we provide a special thank you to the doctoral students and staff associated with Health Organization Studies at the University of Alberta School of Business whose strong support greatly facilitated the conduct of this research program.

\(^1\) Since completion of our research, health services have been restructured in Alberta and all of our Alberta decision maker partners are now part of Alberta Health Services. Because our research took place prior to this restructuring, we refer to our decision making partners according to their previous names as separate regional health authorities.
# Table of Contents

Main Messages: Key Implications for Decision Makers ............................................................... 4

Executive Summary ........................................................................................................................ 5

Full Report: Organizational Learning in Primary Health Care Innovation ............................... 8
  Introduction and Research Context ..................................................................................... 8
  Background Framing & Research Questions ....................................................................... 10
  Research Approach ........................................................................................................... 13
  Findings ............................................................................................................................. 18

Appendix A: Strategies to Ensure Research Rigour ................................................................. 31

Appendix B: Helpful Resources ............................................................................................. 32

Appendix C: List of Practitioner Presentations ..................................................................... 33

Appendix D: List of Academic Presentations ....................................................................... 34

Appendix E: List of Publications .......................................................................................... 35

Appendix F: References ........................................................................................................ 36
Organizational Learning in Primary Health Care Innovation

Main Messages: Key Implications for Decision Makers

We wanted to understand how health organizations learned to spread and institutionalize good ideas about providing primary health care services. Our key findings are listed here:

1. **Positive relationships among health care professionals and managers are crucial to organizational learning.**
   - Health care managers, physicians and other health professionals must devote time and energy into developing mutually trusting and respectful relationships. It is these relationships that form the basis for open dialogue and the generation of new ideas.
   - In successful sites, the relationships among physicians, managers, and other health care professionals were restructured in ways that bridged different belief systems and established new power dynamics among team members. These new relationships enabled them to find workable solutions to shared problems.

2. **Organizational learning is enhanced when efforts are led by highly skilled, full-time, and “neutral” (i.e., neither physician nor administrator) managers.**
   - In successful sites, site managers facilitated the development of positive relationships among professionals that led to “generative” spaces where organizational learning could occur.
   - Site managers served a critical liaison function by bridging their site with other sites and the larger health system. They also served as an important mechanism for knowledge gathering and sharing.

3. **Organizational learning is improved by flexible mechanisms for managing resources that encourage local innovation within established parameters.**
   - Within innovation sites, managers, physicians and other health professionals took pride in developing their own solutions. Decentralized and flexible budget arrangements fostered higher levels of enthusiasm for innovation activities.
   - At the same time, this local flexibility required secure grounding in parameters that were acceptable at the organizational and system levels. This required careful balancing of individual initiative and enthusiasm with organizational requirements.

4. **Organizational learning takes time. Patience and persistence are essential.**
   - All the innovation sites we studied underwent significant challenges. Finding ways to cope with difficulties and set-backs was an important factor in overall success.
Organizational Learning in Primary Health Care Innovation:

Executive Summary

Our research was designed to provide new insights about how organizations engage in processes of innovation and learn to spread and institutionalize good ideas about providing primary health care (PHC). This is important because finding new and better ways to deliver PHC is essential for long term sustainability of publicly funded health care. There have been many successful innovation projects over the years, but health organizations have found it difficult to transfer the learning from these projects to the broader delivery of PHC services.

We followed the development and ongoing activities in ten PHC innovation sites over a period of three years. Eight sites were located in Alberta and two sites were in British Columbia. We wanted to understand how health care managers, physicians and other health professionals work together to set up PHC innovations, learn from their implementation experiences, and share knowledge with other organizations.

We used the term “organizational learning” to describe the dynamic process through which organizational members collectively draw upon past experience and/or new ideas and knowledge to change their work practices. This type of learning is manifested in organizational changes (e.g., in structures, practices, relationships among groups) that endure beyond the tenure of individual members.

Our program of research consisted of three phases over three years. In each phase, we interviewed site managers, family physicians, and other health professionals involved – for a total of 170 interviews. We also collected local and regional documents associated with each of the initiatives as well as government or RHA materials related to the primary health care initiatives more broadly.
Based on the existing research literature and our discussions with research partners, we developed the following research questions to guide our study:

- **In developing PHC service innovations, how do leaders gather ideas about new ways to deliver care and where do these ideas come from?**
- **In the early stages of innovation, how do key stakeholders in the PHC experiments sort through the experiences and modify the strategies and implementation plans?**
- **In the middle stages, after the innovation is implemented and accepted as successful, how do leaders of the PHC initiative transfer knowledge to other settings?**
- **In the later stages, after several years experience with the PHC innovation, what processes and indicators of organizational learning can be identified?**

To date, our analyses have led to the identification of six overarching processes (each with various sub-processes and mechanisms) that facilitate organizational learning. They are:

1. **Bricolage: Assembling and re-assembling experiences, ideas, and knowledge** – innovation site members rarely drew “wholesale” from the academic literature or the experiences of other organizations. Instead, we observed a process of bricolage in which bits and pieces of existing information, ideas and experiences were assembled into innovations deemed most useful for solving the problem at hand. Conversations were fundamental to this process.

2. **Implementing supportive mechanisms for learning** - across all innovation sites, we observed two particular structural arrangements that facilitated learning. These are: (a) the critical role of skilled, committed site managers, and (b) the decentralized and flexible budget arrangements that fostered higher levels of enthusiasm and innovation.

3. **Creating the right kind of “space” for organizational learning** – by the end of our study, six sites were characterized by a sense of excitement and interest in trying new things, positive
relationships among members, and innovation. We called these “generative” spaces and identified four sub-processes through which these spaces were created and maintained.

4. **Strengthening dynamic capabilities for learning** - by enhancing a dynamic capability of ‘learning through experimenting,’ organizations engaged in organizational learning that continually improves performance.

5. **Managing the rivalry between medical professionalism and business-like health care** – organizational learning required the development of new relationships that respected different professional perspectives among managers, physicians and other health professionals.

6. **Balancing power and developing new power dynamics among team members** - organizational learning was enhanced when interdisciplinary teams developed new power dynamics supporting new ways of providing PHC services. Local site managers were critical in this process.

Our findings to date have four key implications for decision makers. First, **positive relationships** among health care professionals and managers enable the melding of diverse perspectives, knowledge and experiences from which to build new ideas. These relationships also generate enthusiasm for collective efforts to solve mutual problems. Second, organizational learning is enhanced when efforts are led by **highly skilled, full time managers** who focus on creating generative spaces for learning. Third, organizational learning is improved by **flexible mechanisms for managing resources** that encourage local innovation within established organizational parameters. Decentralized, flexible arrangements foster enthusiasm for innovation but this must be balanced with organizational requirements. Finally, organizational learning takes time; **patience and persistence** are essential. Setbacks and challenges are inevitable, and finding ways to cope with them is an important factor in overall success.
Introduction and Research Context

This report summarizes our study of the organizational processes of innovation and learning in primary health care settings. We followed the progress of ten primary health care (PHC) innovations in six Regional Health Authorities (RHAs) over a three-year period. Our research approach was based on partnerships with these RHAs, and as part of the research process, we provided ongoing feedback to them about our findings. Although we expect our research to make theoretical contributions to the academic literature, our findings also provide important information for managers, physicians and other health professionals who are interested in improving delivery of PHC services.

Our research was based on the need to develop new and better ways of delivering primary health care (PHC) services in Canada. In response to calls for the reform of PHC services, many isolated experiments have yielded promising new approaches, but implementation of these good ideas on a broad level has yet to occur. There have been many special PHC projects that reported positive local findings from implementing new collaborative working relationships, and introducing alternative practices in community-based health centres and home care agencies. However, these projects also reported skepticism that learnings could be transferred to the mainstream health care system.

We still do not know enough about how innovations can be spread, implemented, and sustained in health care. A recent systematic review, for example, found that the “most serious gap” in the extant literature is lack of attention to the processes by which particular innovations in
health service delivery and organization are “implemented and sustained (or not) in particular contexts and settings” and how these processes can be enhanced.

Our decision maker partners identified similar concerns. Health care managers from rural and urban regions in Alberta and British Columbia told us that while they were excited and hopeful about many of the PHC experiments going on in their regions, they wanted more information about how to best transfer the learning from individual innovation sites to other PHC settings in their regions.

Based on these challenges, our objective in this research was to understand how organizations learn to spread and institutionalize good ideas about providing PHC. More specifically, we wanted to understand how Regional Health Authorities (RHAs) and physicians work together to set up the innovations, learn from their implementation experiences, use these learnings for future endeavours, and share knowledge with other units in their organization and with other organizations.

We use the term “organizational learning” to describe the dynamic process through which organizational members collectively draw upon past experience and/or new ideas and knowledge to change their work practices\textsuperscript{8,9}. This level of learning is manifested in organizational changes (e.g., in structures, practices, relationships among groups) that endure beyond the tenure of individual members.

Through access provided by our decision maker partners on this three-year research program (2005-2008), we were able to observe patterns of learning and innovation (and potential sharing of learnings to other sites and regions) in different contexts. We followed 10 PHC innovation sites in six RHAs (5 in Alberta; 1 in British Columbia) over three years. Our research adds to the existing knowledge on learning and innovation in organizations by identifying and
understanding important micro-processes and practices that help create generative spaces for 
learning and innovation. Our research also sheds new light on processes of institutional change 
in health care organizations, including how various actors may use their power to influence 
change and how the competing logics of medical professionalism and business-like healthcare 
can successfully co-exist for the benefit of learning, innovation and improvements in service 
delivery.

**Background Framing & Research Questions**

Our study builds on previous research findings from four different bodies of research literature:

1. *Ways in which PHC innovation strategies have already been implemented.*
2. *How the process of knowledge transfer occurs in organizations.*
3. *The influence of professionals and their role in spreading new practices.*
4. *How new ideas are introduced and become institutionalized.*

In this section, we provide a short summary of the literature in each of these areas, and present 
our research questions that were developed based on the pre-existing research.

First, the literature on PHC innovation strategies has focused mostly on individual 
projects. Encouraged by federal and provincial funding initiatives, individual projects have 
yielded locally positive results\(^{10}\). However, learning to transfer knowledge from these projects to 
the larger system has been much more difficult\(^{11, 12}\). Successful projects have incorporated 
factors that we already know are likely to lead to positive outcomes, such as strong commitment 
from front-line physicians,\(^{13, 14}\) a team approach to provision of services,\(^{15}\) patient involvement 
and community involvement\(^{16}\). But before our study, there had been little research attention on 
how organizations transfer knowledge from isolated innovations to the larger context. In their
extensive literature review, Greenhalgh et al.\textsuperscript{17} found only a “tiny proportion of empirical studies that acknowledged, let alone explicitly set out to study, the complexities of spreading and sustaining innovation in service organizations”.

Second, the organizational literature on knowledge transfer provided some suggestions about how knowledge can be effectively transferred from one site to another. Studies from for-profit settings have shown that organizations can improve their performance by learning from their own experiences as well as the experiences of others\textsuperscript{18, 19}. Within organizations, successful mechanisms for transferring knowledge have been broadly categorized as “moving people, technology, or structure to the recipient organization, or by modifying people (e.g., through training), technology, and structure of the recipient organization”\textsuperscript{20}. However, other studies show that context plays a strong role in transferring knowledge. When the situations of “recipients” and “donors” are closely matched, knowledge transfer is most likely to occur; however, contextual variation from one site to another makes knowledge transfer more complex and difficult\textsuperscript{21}.

Third, we also grounded our study in literature concerning professional practice patterns and how these may vary from one setting to the next. How services are provided, and how changes are made is (appropriately) controlled by professional judgment. In order to benefit from learnings in local experiments, professionals must not only acknowledge that others have developed new knowledge, they must also determine that the learnings will be relevant and useful in their own local context. Ferlie et al.\textsuperscript{22} found that boundaries between professions and reluctance to change practice based on the experience of others resulted in the “nonspread” of innovations. They suggested that a high level of professionalization in health care may be a strong barrier to learning from innovation.
Finally, in the organizational literature, we drew on institutional theory as one way to understand system-level innovation. From this perspective, institutional entrepreneurs\(^23, 24\) take action to fundamentally alter some component of established systems. But, “when innovations meet institutions, two social forces collide”\(^25\). That is, when new products or processes are implemented in a well-established work world, the old ways of working are necessarily challenged. Studies of institutional change show that there is a cycle to establishing new ways of working. New ideas arise, are tested in selected sites, become accepted as legitimate and then fully institutionalized\(^26, 27\). According to the established literature, institutional change occurs slowly and in stages. If new ideas (and often good ideas) do not become widely accepted, the organizational learning process does not proceed, and taken-for-granted practices do not change.

Based on the concepts described above, and from discussions with research partners, we developed the following research questions to guide our study:

- *In developing PHC service innovations, how do leaders gather ideas about new ways to deliver care and where do these ideas come from?*
- *In the early stages of innovation, how do key stakeholders in the PHC experiments sort through the experiences and modify the strategies and implementation plans?*
- *In the middle stages, after the innovation is implemented and accepted as successful, how do leaders of the PHC initiative transfer knowledge to other settings?*
- *In the later stages, after several years experience with the PHC innovation, what processes and indicators of organizational learning can be identified?*
Research Approach

The questions guiding our research program focused on how RHAs attempt to spread and institutionalize good ideas about providing primary health care. Specifically, our research design incorporated investigation of the various processes associated with organizational learning and the transfer of “good ideas” to other sites and regions. We also explored changes that occurred over time (a longitudinal approach) as a result of these learning processes. To understand these complex phenomena, we adopted a qualitative approach which emphasizes rich description and members’ experiences and interpretations. Such an approach necessarily required in-depth interviews with individuals involved in the PHC sites. This access was facilitated by our decision maker partners.

We used a comparative case study design that incorporated longitudinal (examining the innovations over time) and processual (examining the dynamics and mechanisms associated with learning) methodology. We used a process-based strategy for analyzing organizational phenomena that focused on developing explanations for how and why actions, events, and choices unfold over time in context.

With input from our partners, we selected ten innovation sites in six RHAs to maximize variation in the following ways. The six RHAs ranged from mostly urban (Calgary Health Region and Capital Health) to small town and rural (East Central Health). As well, we included an isolated northern region (Northern Lights Health Region) and two regions with an urban/rural mix (David Thompson Health Region and Interior Health). Some regions have a long history of supporting PHC innovations, while others were beginning their first projects. Although five of the RHAs we studied were located in Alberta, one RHA (Interior Health) is located in British Columbia and provided an important comparator for capturing differences and similarities.
resulting from alternative provincial approaches to PHC reform. [We note here that Alberta RHAs no longer exist since the creation of a single health authority (*Alberta Health Services*) with responsibility for delivering all medically necessary health services within Alberta. For the purposes of this report, we use the names of the RHAs as they were for almost the entire duration of our research.]

**Data Types**

Throughout this three-year research program, we engaged in ongoing data collection and analysis efforts, using established protocols. Our primary source of data was generated from in-depth interviews, but we also collected archival data which included documents created by the RHAs and provincial governments.

In total, we collected approximately 3,400 single-spaced pages of transcribed interview data from 170 interviews with RHA managers, innovation site managers, family physicians and other health care professionals. Informants were selected based on their willingness to participate and on their knowledge of the PCNs. We visited each innovation site annually, striving to interview the same people each year. In cases where the original interviewees had left their positions related to the PCN, we tried to interview the person who had replaced them.

All interviews were semi-structured and designed to provide in-depth, rich data about learning processes and dynamics within the PCNs. We also asked interviewees to tell us about processes of learning that involved other innovation sites and other primary care initiatives. Interviews were tape-recorded (with permission) and transcribed verbatim. If interviewees did not wish their comments to be tape recorded, we followed established protocols of note-taking to develop a written account of the interview.
Communication and Dissemination with Our Decision Maker Partners

We adopted a relational approach to working with decision maker partners that involved ongoing communication (including discussions about interpretations of the data) and dissemination of emerging research findings. We built on and expanded our previously established working relationships with our decision maker partners, and took care to develop quality connections with all individuals involved. This approach required devotion of significant time toward developing mutually trusting and respectful relationships, producing written communication materials, and presenting and publishing our research findings.

This approach was characterized by:

- Collaboration throughout the research process;
- Mutual respect for the various types of knowledge we each bring to the research; and,
- Shared interest in understanding how organizational learning and change can be implemented to enhance the health system.

Three Phases of the Research

Our program of research consisted of three phases. In Phase 1 (2005-2006), we conducted 60 interviews with various individuals at the innovation sites. We focused on getting to know the people and on understanding the emerging structures and activities associated with each site. In particular, we wanted to understand the “start up” processes associated with intentional efforts to learn to provide primary health care in new ways, and we sought to understand these concepts from various perspectives including those of physicians, administrators, site managers and other health care professionals. We also focused on initial efforts to spread good ideas to other sites. By examining these processes from various perspectives and in different contexts, our research disclosed how organizational actors “get
ready to learn and innovate. In particular, we asked interviewees to tell us how they organized for the purposes of innovating, and how they generated and selected possible options for action.

Based on information gained through the interviews, we created summary documents for each innovation site and shared those with decision maker partners in each RHA for validation and further input. Based on decision maker feedback, any discrepancies or errors were discussed and appropriate revisions were made. Next, we developed an overall summary report that captured the key findings across all innovation sites. This overall summary document was disseminated to all decision maker partners and interviewees. A teleconference with researchers and decision-maker partners was then held to hear each others’ interpretations, discuss findings and identify areas for further exploration in subsequent phases of the research.

In Phase 2 (2006-2007), we conducted 54 interviews and investigated participants’ specific experiences of organizational learning within the innovation sites. We were interested in hearing about changes in each site and within the RHAs as they moved beyond the “start up” phase. We asked interviewees to tell us about the content of their learnings as well as the processes associated with learning and began to discern a set of micro-processes associated with learning and innovation. We began to explore similarities and differences between learning inside the innovation sites and learning across sites or in the health system more broadly.

An interim report that captured key findings across all innovation sites was prepared at the end of Phase 2. Similar to the dissemination process used at the end of Phase 1, all decision maker partners first received interview data feedback for their own RHA, and later received an interim report which formed the basis of a subsequent teleconference meeting. This teleconference involving researchers and decision maker partners provided an excellent forum for discussing the findings and determining appropriate next steps for the third and final phase of the
research. For example, during this teleconference, several of our decision maker partners discussed challenges they were facing with information technology. We responded to these concerns by adding questions about information technology in Phase 3 interviews.

In Phase 3 (2007-2008), we conducted 56 interviews, focusing on efforts to spread learnings from the innovation sites to other areas within the region. We encouraged interviewees to provide us with their opinions about overall advancements or lack of advancement since the beginning of their innovation site. And, since we had received a great deal of particularly negative feedback about their efforts to develop appropriate information technology, we specifically asked all participants to tell us about their experience with information technology as a tool to support PHC innovation. It was during this phase of the research that the Alberta government announced a large-scale restructuring of health care services that included the dis-establishment of all our Alberta RHA decision-making partners. This did impact on our ability to complete the final round of interviews, but with support from all concerned we were able to interview all individuals as intended in our research design.

Since the completion of our data collection, we have been engaged in coding and analyzing data with assistance from qualitative software (QSR N-Vivo). We have also been developing a number of manuscripts based on our findings. And, we are in the process of comparing our results with those obtained from similar research occurring in Quebec. We are sharing anonymized data and findings between research projects and looking for different or similar contextual factors impacting the spread of PHC innovations.

We followed established procedures to ensure the rigour of our research. Please see Appendix A for further details.
Findings

In this section we provide an overview of key findings that have emerged from our research to date and which are particularly salient to managers in health care organizations. Specifically, we have identified six overarching processes (each with various sub-processes and mechanisms) that facilitate organizational learning. These processes provide insight into practices that might be successfully employed by organizational leaders to facilitate organizational learning, innovation, and change.

1. Bricolage: Assembling and Re-assembling Experiences, Ideas and Knowledge

We examined the focus and content and levels of learning within and across the innovation sites as well as the spread of ideas throughout the broader health system. Interviewees consistently cited three sources of ideas and information for innovation:

- The internal experience of people in the region;
- New ideas presented at conferences or discussed with colleagues; and,
- New ideas found in publications or internet searches.

Thus, our research revealed that ideas from “the literature” (e.g., published research papers) or from other organizations were seldom, if ever, adopted “wholesale” by the innovation sites. Instead, we observed a process of “bricolage” – gathering bits and pieces of existing information, ideas, and experiences, discussing their merits, then selecting and combining those deemed most useful for solving the problem at hand. Through this process, innovation site members devised and implemented new ways of delivering service that were deemed workable in the local situation.

Conversations were fundamental to this process. In the “start up” phase, interviewees described conversations with various stakeholders regarding frustrations with current practices
and what a better system might look like. Through these interactions, a deeper, more holistic (i.e., grounded in a variety of perspectives, such as those of administrators, physicians, and front line workers) understanding of the context and situation emerged among members. In turn, this new, deeper understanding helped focus the search for solutions. Again through conversation, various ideas were examined and accepted in whole or in part; others were discarded or recombined.

Site managers played a key role in facilitating these conversations. They were also instrumental in bringing new ideas and information from external sources to innovation site members in manageable ways – that is, in ways that did not overwhelm people with information yet provided background and new ideas for consideration and further exploration. More fundamentally, and as will be described below, they played a key role in creating the “space” in which these conversations could occur.

2. Implementing Supportive Mechanisms for Learning

Research suggests that organizational learning mechanisms (OLMs) - structural arrangements within an organization that enable organizational members to collect, analyze, disseminate and apply information and knowledge\(^{37}\) - are critical to organizational learning. In essence, OLMs are ways through which the experiences of individuals are analyzed and shared by organizational members and then become the “collective asset” of the entire organization through dissemination of “lessons learned” to other units or through changes in operating procedures\(^{38}\). Across all 10 innovation sites, we particularly observed the importance of two OLMs that RHAs developed to facilitate learning and knowledge creation:

1. **Skilled, full-time managers for innovation sites** - our observations of different management structures among the 10 sites led us to see the importance of having a dedicated manager for each site who was skilled at creating generative spaces (see below)
where people from different disciplines could come together to share and discuss or debate ideas and make plans for moving ahead. These managers:

- Maintained a neutral position – they were neither an employee of physicians nor of the RHA -which was essential in developing an atmosphere for physicians and others to work collaboratively;
- Managed ongoing engagement of physicians and RHA executives;
- Acted as champions for innovation;
- Grounded the innovation in the local context;
- Acted as advocates for their site;
- Coordinated innovative activities to enable progress;
- Forged important linkages to other innovation sites and the broader health system, thereby keeping local participants abreast of “lessons learned” in other sites; and,
- Provided a conduit to discuss issues and introduce change at the organizational and provincial levels.

2. **Mechanisms for managing resources** – mechanisms used to manage resources appeared to impact organizational learning, particularly at the level of engagement and enthusiasm for planning and implementing new ways of providing service. We identified two important mechanisms:

- Budget flexibility – decentralized and flexible budget arrangements appeared to foster higher levels of innovation site participant enthusiasm for and investment in innovation activities.
• Recruiting and retention flexibility – the ability to modify hiring strategies based upon evolving needs and priorities was important in encouraging individual commitment to the ongoing planning processes.

Our research investigating OLMs helps to provide insights about particular organizational activities that foster learning and innovation. In addition, our research points to the crucial importance of restructuring relationships among administrators, physicians and other health professionals in ways that enable them to work collaboratively in developing service delivery innovations. We note that this can be particularly challenging given the history of relationships among these groups. In sites that viewed themselves as successful, we observed ongoing attention to the process of building positive relationships among these key players.

3. Creating the Right Kind of “Space” for Organizational Learning

Organizational learning occurs as people in organizations collectively develop new knowledge through interactions and conversations with each other. In spite of research that points out the importance of high quality conversations in organizational learning, there has been little previous research attention to how such conversations are developed. What little research there is suggests that the nature of the “space” in which conversations occur is critical to understanding the process of organizational learning, but little is known about how to create the “space” where learning can effectively occur. Our research helped address this question because we were able to identify three different kinds of “spaces” that influenced the extent to which conversations, learning and knowledge creation occurred:

• Generative spaces – in six sites, we found a sense of excitement and interest in trying new things. These sites were characterized by positive relationships - patterns of
interacting in which people developed a sense of mutuality, positive regard and respect for one another.

- **Inert spaces** – in a few sites people told us they were trying new ways of working, but expressed very little enthusiasm for the work. They attended meetings, but reported that little was accomplished. We labeled this space as inert.

- **Toxic spaces** – in a very few sites, interviewees told us about the development of difficult relationships and high levels of distrust to the extent that people sometimes refused to meet with each other. Similar to literature on toxic workplaces\(^{42}\), we heard about negative experiences through terms that constituted “us” versus “them” dynamics.

We particularly wanted to understand how generative spaces were developed and sustained, and our analyses indicated that continuous attention to the following four sub-processes was required:

- **Assembling the right people** – the ongoing process of bringing together people who are committed to developing new and better ways of providing services, and who collectively possess a diverse mix of perspectives and experience relevant to the issues at hand.

- **Developing positive social relationships** – ongoing attention to developing positive, mutually respectful and trusting relationships such that people are able to express their ideas and concerns and be open to those of others. This facilitates honest dialogue that increases the potential for development of innovative ideas that will work in the local context.

- **Guiding the conversation** – focusing the conversation toward prioritization of a select number of strategies helps harness and direct peoples’ energy, even if the selected priorities are not a particular individual’s first choice. Focusing on a small number of
strategies is accomplished in part through finding “common ground” among the people.

- **Developing mechanisms to manage setbacks** – finding ways to offset inevitable and frustrating delays in progress. Such mechanisms include demonstrating that progress is being made, expediting planning processes (e.g., having an individual dedicated to the planning process; finding a balance between engaging participants while not overwhelming them with minutiae), and keeping people focused on the big picture goals while minimizing distracting details.

We understand these four sub-processes to be ongoing, dynamic, and integrally intertwined. Importantly, the creation of generative spaces for organizational learning requires sustained attention to all four sub-processes. Without all four, we observed the development of inert or in some cases even toxic space.

Our findings show how people in organizations can encourage organizational learning by creating physical, temporal and emotional space for the process to occur. They also show how organizational managers were able to facilitate the development of high quality connections between people (i.e. physicians and health organization managers) as a critical component in facilitating organizational learning.

### 4. Strengthening Dynamic Capabilities for Learning

Our research also revealed new insights about how managers can address the gap between “what is known” and what is actually done in practice - or what Pfeffer and Sutton call “the knowing-doing gap”. In previous research, we showed how the deliberate use of “learning through experimenting” allowed continual performance enhancement, even in the face of
resource constraints. In this research, we examined how the “knowing-doing gap” was narrowed through the effective use of leadership and trust, and how the tension between the “excitement of innovation” and the “requirement for organizational guidance” must be managed. We showed how people collectively created a culture of “knowing through doing” and also showed how this culture helped to sustain and improve the organization’s dynamic capabilities (abilities to use internal resources to adapt to change and/or improve performance).45

Key findings from this research include:

- By enhancing a dynamic capability of learning through experimenting RHAs can continually improve performance. We saw that managers identified existing dynamic capabilities and drew on them to develop a culture of “knowing through doing.”
- Leaders in the innovation sites and in the RHA enabled the dynamic capability of learning through experimenting by re-framing the work relationship between physicians and other professionals.
- Managers balanced tensions between individual initiatives and organizational control; they created time to learn, and either restricted or fast-tracked some experimenting where outcomes (either positive or negative) were already known.

This research helps to explain how health care managers can draw on existing dynamic capabilities, manage knowledge within the organization, and contribute to overall organizational learning. Over time, these efforts may contribute to closing the gap between knowing and doing, and encourage the development of a culture of learning through experimenting.

5. Managing the Rivalry between Medical Professionalism and Business-Like Health Care

In previous research we suggested that since the 1994 regionalization of health care services in Alberta, the competing institutional logics of medical professionalism (which
privileges the doctor-patient relationship and physician knowledge) and business-like health care
(which privileges principles of cost effectiveness, use of the lowest cost provider, and patient
satisfaction) have co-existed in an “uneasy truce”\textsuperscript{46}. Drawing on our earlier work and building
on advancements in institutional theory, this research project helped us to show how the ongoing
rivalry between these logics was managed through collaborative relationships. We found that
collaborators (RHA managers and physicians) were able to maintain their independence (and
their competing logics) but work together to achieve a desired outcome. Further, we showed how
the process of working together toward short term goals led to the development of new
institutionalized working arrangements that seemed to support the co-existence of medical
professionalism and business-like healthcare\textsuperscript{47}.

More specifically, we found that in order to provide patient care, physicians and managers
used four mechanisms to manage the rivalry, allowing them to work collaboratively despite the
fact that they were guided by different logics. These mechanisms are:

- **Differentiating medical decisions from other RHA decisions** – Because neither physicians
  nor RHAs could accomplish their work separately, they developed new decision-making
  strategies such as Physician Liaison Councils that recognized RHAs’ legal obligations and
  also incorporated physicians’ opinions on medical matters. Thus physicians had input on
  clinical issues while RHA managers retained control over funding and service delivery.

- **Seeking formal and informal input from physicians as part of the decision-making
  process** -- Over time, RHAs found ways to include physicians as important components of
  the system and draw informally on their expertise.

- **Working together against government** – Over time, RHAs distanced themselves from
government and began to work together with physicians to accomplish projects that
government did not initially support. As a result, they began to work together on short term projects that led to a more long-term, positive working relationship.

- **Jointly innovating in experimental sites** – Initiatives such as the PHC innovation sites provided an opportunity for physicians and RHAs to work together on projects that were meaningful and interesting to both. This has encouraged the formerly oppositional groups to draw on their separate strengths and work collaboratively.

Our research helps to show that the competing logics of *medical professionalism* and *business-like health care* can successfully co-exist and the rivalry between them can be managed through the development of collaborative relationships. Interestingly, we found that collaborators maintained their independence but worked together to accomplish work demanded by societal, legislative and professional pressures.

**6. Balancing Power and Developing New Power Dynamics Among Team Members**

Our research findings also show how front-line actors with different types of power use their sources of power during processes of change. More specifically, we observed that the actions of three key actors have been critical to the success (or lack of success) in the innovation sites. Our analysis of the data indicates that each of these actors holds different sources of power and has used that power in different ways. These actors are:

- **Family physicians** – responsible for providing medical care. Their sources of power are based on their expert medical knowledge, legislation protecting their exclusive right to practice medicine, and the current ‘short supply’ of physicians.

- **Innovation site managers** – responsible for developing inter-disciplinary teams, developing business plans, making the site operational, and keeping it running effectively.
Their sources of power are managerial “know how,” positional responsibility for the innovation site, and their availability of time to manage the site.

- **RHA executive level managers** – responsible for overall delivery of health services in their geographic region. Their sources of power are: control of financial resources, and positional authority which allows them to make organizational decisions including the designation of human and other resources to particular projects.

By focusing on how these key actors used their various sources of power, we were able to move away from distinctions between ‘powerful’ and ‘powerless’ actors. Instead, we are considering the nuances of power dynamics as different actors influence processes of change. In the most successful sites, there has been a balancing of power between key actors that seems to have largely been accomplished through the actions of local site managers. Our analyses of these power dynamics remains ongoing, but initial findings point to the important role played by site managers in creating new work routines and encouraging new relationships among professionals.

**Ongoing and Future Research**

Our research efforts are ongoing. We have amassed a large volume of data, and our analyses will continue over the next months. We will continue to present our findings to both practitioner and academic audiences and our development of publishable manuscripts will continue over the next several years. We have begun to conduct comparative work with our collaborators who have investigated primary health care reforms in Quebec, and the products of this work will continue to develop. These ongoing initiatives are listed in Appendices C, D and E.

Our focus to date has been primarily on organizational learning within the innovation sites and within the RHAs. But we also want to understand how knowledge developed in local
innovation sites is being transferred to the larger health care system. This component of our research remains a work-in-progress. Overall, our interviewees tended to focus on learning processes within their own innovation site. They told us about their sense of pride in developing local solutions that were unique. In some cases, people were particularly pleased that their site was more “advanced” than other innovation sites. However, as we review the overall data, we see that the model for the eight Alberta sites has already spread throughout Alberta and a modified version is now being implemented in British Columbia. We will continue to follow this process through information in publicly available documents. As part of our analyses, we are drawing on the concept of social innovation (i.e. innovation with a goal of social improvement rather than financial gain) as a way to understand the process of knowledge transfer. This work is underway and we intend to report on our findings through presentations and publications.

Summary: Key Findings and Implications for Organizational Learning

Our research findings to date draw attention to the following factors involved in the successful development of PHC innovations sites and the related processes of organizational learning and knowledge use:

- The development and maintenance of positive relationships among health professionals and managers is critical to the process of organizational learning. These relationships are characterized by “patterns of interacting in which people develop a sense of mutuality, positive regard, and respect for each other. People in such relationships feel enriched and energized by them and thus strive to maintain the relationship even in difficult circumstances.” ⁴⁸
- **Organizational Learning Mechanisms (OLMs)** that facilitated local decision-making within parameters that were acceptable at the RHA and system levels were critical. This was particularly evident in some sites where funding mechanisms encouraged local participants to target financial resources in ways that met local needs.

- **Dedicated (full-time), highly-skilled innovation site managers** were critical for organizational learning. In the most successful sites, these skilled managers:
  - Facilitated development of positive relationships among professionals;
  - Created generative spaces in which organizational learning could transpire;
  - Bridged local innovation sites with other sites and other organizations;
  - Acted as champions for innovation;
  - Acted as advocates at multiple levels for the local innovation site; and,
  - Balanced tensions between individual initiative and organizational control.

- **Developing ways for health professionals to work collaboratively** was essential to meeting the goals of the innovation sites. When professionals worked collaboratively, they were able to use new knowledge to implement new ways of working. As part of this process, health professionals found ways to bridge competing perspectives so that they could find workable solutions to shared problems.

- People involved in the innovation sites focused on the importance of knowledge they created locally, however, it seems that the similar structures for all sites and availability of common knowledge led to more similar than different ways of working across the sites. Exceptions include the few sites where a relatively toxic environment was created and the initiative was stalled.
• We suggest that it is too early to say whether knowledge from the innovation sites will be transferred to the larger health care system. Re-organization of the Alberta health care system is impacting all health initiatives. However, the model for PHC innovation sites has now been replicated to the point where approximately 60% of Alberta family physicians are now enrolled in such an initiative, and a modified version of the model is being implemented in British Columbia.

In conclusion, we thank all of our decision-making partners, funders, and associates for their engagement and support. Our insights are a result of their encouragement and assistance. We believe that the longitudinal nature of our research has been critical in developing meaningful conclusions, and we encourage support for other such initiatives in the future.
Appendix A: Strategies to Ensure Research Rigour

To ensure validity as typically operationalized in qualitative research\textsuperscript{49, 50} we implemented four protocols. These were:

1. collecting multiple types of data (i.e., interview data to bring out different perspectives and experiences of change and archival data to disclose a historical perspective on the evolution of change in particular contexts) to balance different understandings of learning and the spread and adoption of innovations;

2. following established practices including “theoretical sampling” and “constant comparison”\textsuperscript{51} to analyze process data\textsuperscript{52, 53, 54};

3. seeking respondent validation or “member checking”\textsuperscript{55} to clarify different viewpoints on learning and innovation processes; and,

4. qualifying our subjectivity as researchers\textsuperscript{56, 57} through reflection on how our prior experience and background and familiarity with people being researched shaped our work, and also by having multiple researchers from our team study each learning process and holding discussions of our various assumptions and views of the data.

To ensure transferability of results, we selected information-rich cases for in-depth study\textsuperscript{58, 59} as well as different sites for maximum variability\textsuperscript{60}. We conceptually generalized findings about learning through controlled comparison\textsuperscript{61} of patterns within and between innovation sites. Potential generalizations discovered in one case were tested against other cases and those that survived were claimed as generalizable to those types of cases (e.g., identification of micro-processes of creating a space for learning).
Appendix B: Helpful Resources

We found the following articles and books geared toward learning in organizations to be helpful and recommend them as readable and interesting:


Appendix C: List of Practitioner Presentations


Casebeer, A. Workshop on Learning to Change (using examples from the PCN research) in conjunction with *Accelerating Primary Care Conference*. Presented 11 February, 2009. Edmonton, Alberta.


Appendix D: List of Academic Presentations

Reay, T. & Hasselback, P. Innovating in Primary Health Care. SI2: A workshop exploring the interplay of social innovation and social institutions. Simon Fraser University, Vancouver BC. Forthcoming, September 2009.


Reay, T. Organizational Learning in Primary Health Care. Presentation to members of the Knowledge Utilization Studies Program at Faculty of Nursing, University of Alberta. June 2008.


Appendix E: List of Publications

Accepted Publications

Reay, T., & Hinings, C.R. Forthcoming. Managing the rivalry of competing institutional logics. 
*Organization Studies.*


Manuscripts in Preparation

Reay, T. Power dynamics in institutional change: Institutionalizing new ways of working in primary care.


Appendix F: References


