Factors that Influence Collaboration in the Delivery of Primary Health Care Services: A Case Study of Quesnel

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Abstract

The purpose of the research is to examine the factors that prohibit and facilitate vertical and horizontal collaboration in the delivery of primary health care services in Quesnel, a small community in north-central British Columbia. Although barriers and facilitators to such collaboration have been identified in Primary Health Care Transition Fund projects (PHCTF) undertaken in urban settings, little research has been done to examine the factors at play in rural and northern communities like Quesnel, British Columbia. The four categories of barriers and facilitators to interdisciplinary collaboration examined include: financing/funding, regulation/liability, electronic health records and health human resources. The resulting conclusion is an expansion of the categories to include barriers and facilitators unique to northern communities: the geographic location of a community, community member participation, the importance of patients and the dependency on physicians.

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List of Terms

CHA - Canada Health Act

CDM - Chronic Disease Management

EICP - Enhancing Interdisciplinary Collaboration in Primary Health Care

EHR - Electronic Health Records

ECCM - Expanded Chronic Care Model

HHR –Health Human Resources

HSDA – Health Service Delivery Area

PHC- Primary Health Care

PHC-Coordinator – Primary Health Care Coordinator

PHC-Quesnel – Primary Health Care Quesnel

PHCTF - Primary Health Care Transition Fund

UNBC – University of Northern British Columbia

WHO - World Health Organization

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This thesis is dedicated to the memory of a dear friend and mentor

Julia Johnson

July 29, 1945 – January 18, 2008

Introduction

Primary health care (PHC) is a term that first emerged in the 1970's when it was defined by the World Health Organization in the *Declaration of Alma Ata.*[1] It refers to the first point of contact a patient has with the health care system within a defined geographic area with an emphasis on disease prevention, health promotion and coordination/integration of care.[2] A collection of products and services, the essential elements of a PHC system, includes citizen participation in governance, coordination of services, a strong reliance on information sharing, and patient choice.[3] PHC is considered to be the foundation of the health care system. Whether it is a visit to the doctor's office, participation in a chronic disease management collaborative or a vaccination appointment at the local public health unit, one is participating in a PHC system. It is both the pervasiveness of PHC and its ability to improve health while reducing health inequities across populations that makes PHC so important.[4] A strong PHC system that takes into account the contextual factors facing a community can address acute and episodic health conditions and manage chronic diseases like diabetes and asthma through the collaboration of patients, physicians, community members and all levels of government.[5] By utilizing these elements, each a unique and distinguishing

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[1] Lissa Donner and Ann Pederson, "Women and Primary Health Reform: A Discussion Paper." (Winnipeg: *National Workshop on Women and Primary Health Care*, February 5-7, 2004): 2. Available from: <http://www.cewh-cesf.ca/PDF/health=reform /primary-reform.pdf >

[2] Health Canada, *About Primary Health Care*, Ottawa: *Health Canada*. Available from: <http://www.hc-sc.gc.ca/PHCtf-fassp/english/about.html >

[3] Raisa Deber and Andrea Baumann, "Barriers and Facilitators to Enhancing Interdisciplinary Collaboration in Primary Health Care." (Ottawa: Enhancing Interdisciplinary Collaboration in Primary Care, March 2005): 1-2. Available from: <http://www.eicp-acis.ca/en/resources/pdfs/Barriers-and-Facilitators-to-Enhancing-Interdisciplinary-Collaboration-in-Primary-Health-Care.pdf >

[4] Diane E. Watson et. al. "A Results-Based Logic Model for Primary Care: Laying an Evidence-Based Foundation to Guide Performance Measurement, Monitoring and Evaluation." (Vancouver: Centre for Health Services and Policy Research, September 2004): 1. Available from: <http://www.chspr.ubc.ca/files/publications/2004/chspr04-19.pdf>

[5] Diane E. Watson et. al, i.

feature of PHC, the system is evaluated in relation to how responsive it is to the needs of patients and community.[6]

In northern British Columbia, PHC is described as a philosophy of Northern Health, one of five regional authorities in the province of British Columbia that is responsible for creating programs that respond to the needs of the people living in the northern and central parts of the province.[7] It is the possibility of responding to the particular needs of a community that makes PHC so valuable to small northern communities. There are various factors unique to small northern communities that have an impact on how PHC services are delivered. These include: isolation (physical and emotional), a transient population, seasonal employment, harsh climate, low population, substandard or low quality health services, and limited access.[8] Additionally, small northern communities face health human resource shortages, high injury rates due to a young population that is typically employed in high risk vocations and an aging population that poses new challenges to the PHC system.[9]

In order for a PHC system to be successful in responding to the needs that are unique to small northern communities there must be adequate vertical and horizontal collaboration.[10] Collaboration consists of several crucial elements: sharing, partnership,

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[6] Raisa Deber and Andrea Baumann, 5. The 'phrase unique and distinguishing features' is credited to Barbara Starfield, a prominent PHC researcher.

[7] Northern Health Authority, *Improving Our Health: Improving Our System. The Northern Health Authority's Primary Health Care Plan 2003-2006. Final Proposal for Health Care Transition Funds.* Prince George: Northern Health Authority, May 200, 3.

[8] Northern Secretariat of the BC Centre of Excellence for Women's Health. *The Determinants of Women's Health in Northern Rural and Remote Regions.* Prince George: University of Northern British Columbia. Available from: <http://www3.telus.net/public/wnn/DOCUMENTS/Determinants_doc_NFwebsite.pdf>10-11.

[9] *Renewing PHC for Patients*, 3. *Improving Our Health, Improving Our System*, 3.

[10] Diane E. Watson et. al., 11. The authors describe vertical/horizontal collaboration as vertical/horizontal integration of services.

interdependency and power.[11] Sharing involves partaking in the same "responsibilities, health care philosophy, values, planning and interventions."[12] By sharing, a partnership develops that is productive and involves extensive communication resulting in mutual respect.[13] Sharing information with partners regularly creates interdependency among the players involved in the collaboration.[14] Autonomy gives way to interdependency with successful collective action.[15] Thus, the power is shared among the partners within the collaboration. Each partner feels empowered if the collaboration is successful.[16]

Vertical collaboration involves the cooperation between the three levels of government and health care providers. For example, a First Ministers meeting in which all of the premiers meet with the Prime Minister to discuss health care is a form of high level vertical collaboration. The coordination and administration of health care services for people living in northern BC by the provincial government and Northern Health is another example of vertical collaboration.

Horizontal collaboration can viewed two ways: horizontal community collaboration and interdisciplinary collaboration. Horizontal community collaboration refers to the coordination of care between groups of health care professionals, community members and patients. For instance, a group of health professionals working with local

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[11] Judith Nolte, "Enhancing Interdisciplinary Collaboration in Primary Health Care in Canada." (Ottawa: Enhancing Interdisciplinary Collaboration in Primary Health Care, April 2005): 3. Available from: <http://www.eicp-acis.ca/en/resources/pdfs/Enhancing-Interdisciplinary-Collaboration-in-Primary-Health-Care-in-Canada.pdf>

[12] Nolte, 3.

[13] Nolte, 3.

[14] Nolte, 3.

[15] Nolte, 3.

[16] Nolte, 3.

businesses and a recreation centre to promote active living is horizontal collaboration. Collaboration is the key to a coherent, connected and consistent PHC system.[17]

Interdisciplinary collaboration, a form of horizontal collaboration, includes health care providers, physicians, nurses and other health professionals working together to ensure patients receive the care they need in a timely and efficient manner.[18] The objective of the team is to involve different disciplines to deliver comprehensive and coordinated care to patients.[19] This is achieved by defining the principles of interdisciplinary collaboration (leadership, coordinating accountability, vision) while encouraging the development of collaborative skills through post-secondary education and ongoing skill reviews.[20]

The importance of collaboration within a PHC system was addressed at a First Ministers conference in September 2000. At the meeting, the Prime Minister announced the creation of the Primary Health Care Transition Fund (PHCTF) to help support transitional costs in the implementation of long-term and sustainable changes to the primary health care system in Canada including increased vertical and horizontal collaboration.[21] The importance of collaboration in facilitating improved response to community needs is reflected in the list of PHCTF objectives; three of the five objectives

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[17] Diane E. Watson et. al., 11.

[18] Health Canada, *About Primary Health Care*, 1.

[19] Diane Watson and Sabrina Wong. "Canadian Policy Context: Interdisciplinary Collaboration in Primary Health Care." Vancouver: Centre for Health Services and Policy Research. (February 2005). Available from: <http://www.eicp.ca/en/resources/pdfs/Canadian-Policy-Context-Interdisciplinary-Collaboration-in-Primary-Health-Care.pdf >, 2.

[20] Nolte, 4, 6, 20. Beaulieu, 139-140.

[21] Health Canada, *Primary Health Care Transition Fund.* Ottawa: Government of Canada. Available from: <http://www.hc-sc.gc.ca/hcs-sss/prim/PHCtf-fassp/index_e.html>.

are related directly to collaboration.[22] Moreover, collaboration between the federal and provincial/territorial governments is described as the key element of the PHCTF.[23] It was decided that over a six-year period (2000 – 2006) that the federal government would allocate $800 million via the PHCTF to the provinces and territories.[24] Viewed as an enabler to influence change in the delivery of PHC services, the bulk of the money was directly divided among the provinces and territories.[25] Any initiative proposed by the provinces/territories was negotiated on a bilateral basis so that the unique circumstances of each jurisdiction were taken into account.[26]

British Columbia, along with other provinces and territories, received a portion of those funds from the provincial envelopes and in turn invested those funds in several collaborative projects.[27] British Columbia received over $74 million from the federal government. The majority of the money was dedicated to the acceleration and expansion of PHC services to address the needs of communities and regions in British Columbia.[28] Accordingly, the provincial government asked the health authorities for proposals outlining how they would use the funds to accomplish the goals set out in the PHCTF. The province stipulated that not only did all initiatives have to align with one of the five objectives of the PHCTF, but also all changes to the PHC system had to adhere to the

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[22] Health Canada, "Objectives of the PHCTF." Ottawa: Government of Canada. Available from: <http://www.hc-sc.gc.ca/hcs-sss/prim/PHCtf-fassp/object_e.html> The complete list of objectives are listed on page

[23] Health Canada, *Primary Health Care Transition Fund*. Ottawa: Government of Canada. Available from: <http://www.hc-sc.gc.ca/hcs-sss/prim/PHCtf-fassp/index_e.html>

[24] Health Canada, *Primary Health Care Transition Fund*, 1. Included in the national envelope of the PHCTF were funds for evidence-based decision-making evaluations by stakeholders and research into the barriers to PHC reform like collaboration.

[25] Health Canada, *Primary Health Care Transition Fund Dissemination Principles*. Ottawa: Government of Canada. Available from: <http://www.hc-sc.gc.ca/hcs-sss/prim/PHCtf-fassp/princip_e.html>

[26] Health Canada, *Primary Health Care Transition Fund*, 2.

[27] Health Canada, *Primary Health Care Transition Fund*, 2.

[28] Ministry of Health Services, *Primary Health Care Transition Fund*. (Victoria: Province of British Columbia). Available from: <http://www.healthservices.gov.bc.ca/PHC/aboutPHCtf.html>

goals and objectives of the provincial health ministries, i.e. performance enhancement agreements between the authorities and Ministry.[29] Concurrently, responsibility for any planning and delivery resulting from the fund was devolved to the health authorities. Nonetheless, the province viewed the PHCTF sponsored initiatives as an opportunity to work collaboratively with the health authorities so that a required information structure was created to support any changes resulting from the fund.[30]

While PHC initiatives were initiated in British Columbia, PHCTF funded researchers brought to light various factors that acted as both facilitators and barriers to collaboration in a PHC system. In their analysis of barriers and facilitators to interdisciplinary collaboration based on an extensive literature review, Deber and Baumann established four categories: financing/funding, regulation/liability, electronic health records and health human resources. Financing refers to the source of the funds for the initiative or goods/service, while funding is the manner in which those funds are used.[31] Liability and regulation refers to the health policies that prohibit or support collaboration and the vulnerability of health practitioners who participate in a collaborative. An electronic health record (EHR) is a secure electronic record of patients' health histories. The availability of health human resources (such as physicians and nurses) can also be a barrier or facilitator depending on the geographic region and population.[32]

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[29] Ministry of Health Services, *Primary Health Care Renewal: Administration of the Primary Health Care transition Fund*, Available from: <http://www.healthservices.gov.bc.ca/phc/pdf/guidelines_forhas.pdf>1.

[30] Ministry of Health Services, *Primary Health Care Renewal*, 3.

[31] Deber and Baumann, 4.

[32] Deber and Baumann 32.

What remains unclear is the degree to which vertical and horizontal collaboration should take place in order to enhance a PHC system's ability to respond to the health care needs of a community. Of specific concern in this thesis are the factors that inhibit and facilitate collaboration between different levels of government and various health care providers in PHC collaborative in rural and remote communities. Although barriers and facilitators to collaboration have been studied in PHCTF projects undertaken in urban settings, little research has been done to examine the factors at play in the collaboration in rural and northern communities within vertical and horizontal dimensions.

To address the degree and dimensions of collaboration required to respond to the health care needs of a small northern community and the barriers and facilitators the community faces, this thesis will examine the case of Quesnel, a small community in north-central British Columbia.[33] Situated in the Northern Health Authority, Quesnel was one of the communities that received PHCTF funds from the province. A community collaborative was developed and supported with the assistance of a PHCTF-funded primary health care coordinator (PHC-Coordinator) and manager of integration of services. A community collaborative is a group of local PHC providers from various disciplines responsible for the redesign of local health services that later was expanded to include various members of the community such as business owners, local government officials and recreation centre managers.[34] This Community Collaborative developed and supported several initiatives such as the increase of influenza immunizations given to chronic disease patients, the use of pedometers by health professionals and patients, the

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[33] Diane Watson et al. *Planning For Renewal: Mapping Primary Health Care in British Columbia.* Vancouver: Centre for Health Services and Policy Research. January 2005. Available from: <http://www.chspr.ubc.ca/research/phc/mapping >

[34] Northern Health Authority, *NHA Community Collaborative Pre-Work Package*. Prince George: Northern Health Authority, April 2004, 33.

use of an online system (Chronic Disease Management Toolkit) to track the progress of patients and the promotion of a fitness centre to women with chronic diseases. It was the strong focus on collaboration with the assistance of the PHCTF, coupled with the small size and geographic location in northern British Columbia that makes Quesnel a suitable choice as a case study to examine the degree and dimensions required to address the health care needs of small northern communities.

Like other communities in Canada, Quesnel has factors that influence interdisciplinary collaboration: financing/funding, regulation/liability, electronic health records and health human resources. Each was a barrier and facilitator to interdisciplinary collaboration in Quesnel. Health care providers in Quesnel faced financial constraints, inadequate technological resources and a shortage of health human resources. What the case study revealed was that horizontal collaboration must go beyond interdisciplinary collaboration in a small northern community. Horizontal community collaboration is essential if the PHC system expects to respond to the health care needs of the community.

What the analysis of PHC implementation in Quesnel further suggests is that when examining the factors that prohibit and/or facilitate collaboration, collaboration must be divided into vertical and horizontal categories to understand what type of collaboration is an issue. Even though the original categories are a useful organizational tool when examining interdisciplinary collaboration in a community, the division of collaboration vertically and horizontally clarifies the barriers and facilitators. The division of collaboration into vertical and horizontal categories highlights the fact that a barrier to vertical collaboration can act as a facilitator to horizontal collaboration. There

are several examples of how barriers not resolved by vertical collaboration created an opportunity for health care providers, community members and patients to collaborate horizontally.

The analysis of the case also revealed that there are characteristics of smaller northern communities that do not easily fit within the four categories that are essential if the PHC system is going to adequately respond to health care needs of the community. The ability of the PHC-Coordinator to take advantage of the small size of the community when first organizing the Community Collaborative, the existing informal horizontal collaborative within the community and the necessity to look outside the existing health system for support due to isolation suggest that the geographic location of a community should be a separate category.

Another factor outside the four categories that also plays a role in vertical and horizontal collaboration is the dependency of patients, the community and health care providers on physicians to participate in a community collaborative. Even though physicians can be placed into the human health resources category given their short supply, to do so is to understate the importance of physicians within a Community Collaborative. The health care system is currently structured in a manner that is highly dependent on physicians for the delivery of PHC services, to the degree that a community collaborative's success is dependent on the participation of physicians. This level of dependency warrants the creation of another consideration of physicians as a barrier/facilitator to horizontal and vertical collaboration. This is particularly the case in small northern communities in which the number and variety of health care professionals

is limited. The family doctor, for the most part, is the only person a patient has contact with in the management of a chronic disease.

Another factor in a community collaborative that is a barrier/facilitator to horizontal and vertical collaboration is the patient. Many of the health preventative and promotive initiatives rely on the participation of patients. Group sessions, self-management of chronic diseases and a more active lifestyle all involve the cooperation of patients. This suggests that patients are not only at the center of a collaboration but are an important member that deserves to be considered as a factor when examining vertical and horizontal collaboration.

Communities also play vital roles in both vertical and horizontal collaboration. This is especially the case when the initiative involves health promotion. The creation of walking paths, free passes to recreation and fitness centres and the distribution of pedometers by sport stores, all in an effort to promote a more active lifestyle, suggest that members of a community play a pivotal role within a collaborative. A change of lifestyle within a community must include the community if the initiative is to have any legitimacy.

Conclusion

Using the four categories recognized by Deber and Baumann, financing/funding, regulation/liability, electronic health records and health human resources, as a framework for analysis, the next step is to examine the factors that inhibit and facilitate vertical and horizontal collaboration in the delivery of primary health care services in Quesnel and, more importantly, highlight the factors that are unique to small northern communities like Quesnel. Consequently, Chapter One reviews literature concerning PHC, PHC reform,

PHC delivery in small northern communities, vertical/horizontal collaboration, the importance of place as a contextual factor and other potential barriers/facilitator.

Chapter Two presents the research methods used, the research materials utilized, and the ethical issues addressed by the researcher.

In Chapter Three, the case study is analyzed, beginning with the state of PHC services in Canada, British Columbia and Quesnel to demonstrate the important role that vertical and horizontal collaboration play in the response to a small northern community's needs within a PHC system.

Chapter Four examines the barriers and facilitators to vertical and horizontal collaboration as well as other factors unique to small communities in Northern BC such as Quesnel including geographic location, dependency on physicians, the importance of patients and the role a community can play within a collaborative. Finally, in Chapter Five, the findings of the case study are reviewed. The final Chapter also includes suggestions for future topics of inquiry.

Chapter One: Literature Review

Introduction

In 1978, the World Health Organization presented the *Declaration of Alma Ata* which contained a definition of primary health care (PHC).[35] Considered a starting point in the conceptualization of PHC, the majority of research related to PHC postdates the declaration. The purpose of this chapter is to review the literature on PHC (and PHC reform) to establish what has been said about barriers and facilitators to PHC vertical and horizontal collaboration, and the delivery of PHC in northern communities. Consequently, various types of written materials are included in this chapter such as academic articles and books, reports produced by government sponsored initiatives, websites, reports and promotional materials.

Primary Health Care

Primary health care has a great many meanings depending on the stakeholder. According to Health Canada, responsiveness to community needs is a key element of PHC. In order to be responsive, PHC services must include prevention and treatment of common diseases and injuries, emergency services, primary mental health services, palliative and end of life care, health promotion, healthy child development, primary maternity care and rehabilitation.[36] It is the addition of health promotion and disease/injury prevention to the list of services offered that separates PHC from primary care. As Deber and Baumann suggest, it is the response to illness that defines PHC.[37] This response ". . . includes coordinating, integrating, and expanding systems and

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[35] Donner and Pederson, 2.
[36] Health Canada, *About Primary Health Care*, 1.
[37] Deber and Baumann, 1.

services to provide more population health, sickness prevention and health promotion by all disciplines."[38]

The *Alma Ata* declaration emphasized the importance of first contact of the individual, family and community with the national health system.[39] In other words, PHC provides promotive, preventative, curative, supportive and rehabilitative services to a community.[40] The idea of first contact is supported by the College of Registered Nurses of British Columbia. A position statement on PHC by the College states that PHC is the ". . . first point of contact with a health care provider for diagnosis, treatment and follow-up for a specific health concern . . ."[41] within a community. In a similar manner, Lamarche et al. suggest that PHC could be interpreted in different ways but for the purpose of their study, PHC is defined as first level services universally provided that promote health, prevent disease, and provide diagnostic, curative, rehabilitative, supportive and palliative services.[42]

PHC services must reflect the needs of community and, as such, will vary depending on the geographic area.[43] Other essential elements of PHC include citizen participation in governance, choice of organization and provider, rostering, physicians' working groups, multidisciplinary efforts, gate-keeping, capitation and health information

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[38] Deber and Baumann, 1.

[39] World Health Organization. *Declaration of Alma Ata*. Available from: <http://www.euro.who.int/AboutWHO?Policy/20010827>. (25 October 2006), 1.

[40] World Health Organization, 1.

[41] College of Registered Nurses of British Columbia. Position Statement: Primary Health Care. Vancouver: College of Registered Nurses of British Columbia. August 2005.

[42] Paul Lamarche et al. "Choices For Change: The Path for Restructuring Primary Healthcare Services in Canada." Toronto: Canadian Health Services Research Foundation, 2003. Available from: <http://www.chsrf.ca/final_research/commissioned_research/policy_synthesis/pdf/choices_for_change_e.pdf>
2.

[43] Health Canada, *About Primary Health Care*, 1.

systems.[44] Watson et al. define PHC along the same lines but include a list of health care professionals that can provide PHC services: dieticians, psychologists, occupational therapists, physiotherapists, pharmacists, and social workers.[45] They suggest that PHC, a collection of products and services, is the foundation of Canada's health care system.[46] Starfield suggests that the elements of PHC include first contact, continuity, comprehensiveness and coordination.[47] If these four are achieved, the health care provider embraces the *Alma Ata* Declaration.[48]

Donner and Pedersen go in a different direction by suggesting that the terms adopted by the Primary Health Care Transition Fund (PHCTF), Canadian Health Services Research Foundation and Health Canada do not clarify the scope and location of services needed within a community.[49] In other words, the definitions leave important unanswered questions concerning what constitutes essential components of PHC that are influenced by factors outside the health care system.[50] In an attempt to depoliticize and in turn exclude non-medical health determinants (like income, social status, physical environment, and education) the federal government avoids any commitment to resolving those issues.[51] The authors suggest that it is not enough to state that there are other factors that should be taken into account without addressing them within the definition of PHC.[52]

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[44] Deber and Baumann, 1.
[45] "Results Based Logic Model," 1.
[46] "Results Based Logic Model," 1.
[47] Barbara Starfield. "Is Primary Care Essential?" *Lancet* 344(8930) (22/10/94): 1129.
[48] Starfield, 1129.
[49] Donner and Pederson, 3.
[50] Donner and Pederson, 3.
[51] Donner and Pederson, 4.
[52] Donner and Pederson, 3.

In addition, the focus on physicians as the first contact with the primary health care system narrows the scope of services available to a patient. Though it may seem obvious to focus on physicians, the narrowness of that focus reduces the ability for various health care providers to collaborate in the delivery of PHC services to patients.[53] The reluctance of the federal government to identify possible collaborators can be attributed to the *Canada Health Act* (CHA).[54] The federal government does not want to commit to any partnerships that do not conform to the Act. In other words, only services recognized by the CHA, including basic physician care, are included in the definition of PHC in PHCTF documents and on federal websites, even if it makes sense for the collaboration to include a specific service. This in turn influences the location of the services. If there is a reluctance to expand the list of potential collaborators, the number of locations providing some PHC services becomes limited. The focus on physicians as the first contact for patients suggests that the majority of PHC services offered to patients may be limited to clinics.

Nevertheless, for the purpose of this thesis, PHC is understood as a system that responds to the needs of the patient and community. This responsive system includes the promotion of healthy lifestyles and the prevention and treatment of common diseases by various health care providers working as a team.

Primary Health Care Reform

A key feature of PHC reform put forward by the federal government is a shift from reactive care involving one physician to care involving a team of providers " . . .

[53] Donner and Pederson, 3.
[54] Donner and Pederson, 3. See Watson et al. for a list of possible collaborators.

who are accountable for providing comprehensive services to their clients."[55] The scope and location of the services to be included in the reform are not defined but the importance of coordinated care by various health care providers to improve access for patients is emphasized.[56] The team approach includes reliance on information technologies such as electronic health records.[57] Common areas of reform include the creation of PHC teams and telephone advice lines, improvements in the management of chronic diseases, greater emphasis on health promotion and illness/injury prevention, voluntary participation, evaluation-based capacity improvements and reformed management activities. Donner and Pederson disagree with the federal government's definition of PHC reform objectives and argue that there is too much emphasis on the PHC system. Instead, one should focus on health inequalities within an improved PHC system.[58] From this perspective, non-medical determinants such as poverty, education, physical and social environments would be as much as a priority as PHC reform.

Under the direction of the PHCTF, the BC government reform objectives are similar to those of the federal government with a stronger emphasis on the treatment and prevention of chronic diseases like diabetes and heart disease.[59] Specifically, the BC government, with the aid of the PHCTF, planned to reform PHC services by improving health care delivery and outcomes and providing patients with a wider range of options for accessing services at the local level.[60] Northern Health endorsed those reform goals and added a few that reflect the particular needs of the region. PHC reforms initiated by

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[55] Health Canada, *About Primary Health Care*, 2.
[56] Health Canada, *About Primary Health Care*, 2.
[57] Health Canada, *About Primary Health Care*, 2.
[58] Donner and Pederson, 7.
[59] Health Canada. *Provincial-Territorial Envelope Initiatives. British Columbia.* Ottawa: Government of Canada. Available from: <http://www.hc-gc.ca/hcs-sss/prim/phctf-fassp/init/bc_e.html> (19 April 2006).
[60] Ministry of Health. *Primary Health Care Transition Fund.* Victoria: Province of British Columbia. Available from: <http://www.healthservices.gov.bc.ca/phc/aboutphctf.html> (19 April 2006).

Northern Health focused on the collaboration between the community and health professionals and, in particular, a chronic disease collaborative initiative involving community-based teams providing integrated care for chronic diseases.[61]

Watson et al. endorse the focus on chronic disease management as a component of PHC reform efforts. They propose that a strong PHC system is one that addresses the challenges of an aging population and that meets the needs of an increasing number of people with chronic disease and some forms of disability.[62] Consequently, they stress the importance of improving access to PHC and quality of the services.[63]

The Canadian Nurses Association views the reform of the PHC system as an opportunity for nurses to participate in PHC. A report to the Canadian Senate stated that nurses are the key to any reform because nurses have the most extensive contact with communities, patients and their families.[64] As part of a multi-disciplinary team, nurses in collaboration with social workers, community health workers, and pharmacists can reduce clinical error, increase patient satisfaction, and improve outcomes for patients with chronic diseases.[65]

Similarly, in a report by the Commission on the Future of Health Care in Canada (Romanow Report) it is suggested that four essential building blocks are needed to reform PHC services in Canada. They are: continuity and co-ordination of care, early

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[61] Northern Health Authority, *Improving Our Health: Improving Our System. Community Collaborative Project Design.* Prince George: Northern Health Authority, April 2004, 4.

[62] "Results Based Logic Model," 1.

[63] "Results Based Logic Model," 1.

[64] Calnan, Rob and Dr. Ginette Lemire Rodger, *Primary Health Care: A New Approach to Health Care Reform.* 6 June 2002. Ottawa: Canadian Nurses Association. Available from: < http://www.cna-aiic.ca/CNA/documents/pdf/publications/PHC_presentation_Kirby_6602_e.pdf>, 2.

[65] Health Council of Canada, *Health Renewal in Canada: Accelerating Change.* Ottawa: Health Council of Canada. January 2005. Available from: <http://www.healthcouncilcanada.ca/docs/rpts/2005/Accelerating_Change_HCC_2005.pdf>, 16.

detection and action, better information on needs and outcomes and new incentives.[66] PHC reform does not entail the implementation of one model but rather fundamental change across the entire health care system.[67]

Primary Health Care Delivery in Northern Communities

There are factors unique to northern communities that have to be taken into account when delivering primary health care services. Factors may include physical and emotional isolation, transient populations, seasonal employment, harsh climate, low population, substandard or low quality health services and limited access to specialized services.[68] Additionally, in BC, health authorities face the challenge of recruiting health care professionals (i.e. family practitioners, specialists, and nurses) to work in northern communities.[69] Coupled with the shortage is a young, working population that is prone to injury/disability.[70] Place is also a determinant of health.[71] In other words, place has a significant role to play in shaping the health of Canadians living in northern communities.[72]

Northern Health suggests (in a plan submitted to the Ministry of Health) that, "[t]his is the regional reality that makes primary health care a key issue for the North and these are the very challenges that primary health care is most effective in addressing."[73]

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[66] Roy J. Romanow, *Building on Values: The Future of Health Care in Canada*. November 2002. Ottawa: Commission on the Future of Health Care in Canada. Available from: < http://www.cbc.ca/healthcare/final_report.pdf>, 121.

[67] Romanow, 121, 135.

[68] Northern Secretariat of the BC Centre of Excellence for Women's Health, The Determinants of Women's Health, 10 – 11.

[69] Ministries of Health Services, *Renewing Primary Health Care for Patients*. Victoria: Province of British Columbia. 2003, 3.

[70] Northern Health, The Northern Health Authority's Primary Health Care Plan 2003-2006, 3.

[71] Romanow, 159.

[72] Marie DesMeules and Raymond Pong, *How Healthy are Rural Canadians: An Assessment of Their Health Status and Health Determinants*. Ottawa: Canadian Institute for Health Information, 2006., iii.

[73] Northern Health, The Northern Health Authority's Primary Health Care Plan 2003-2006, 4.

A strong PHC system improves health while reducing inequities associated with northern communities by coordinating care between health professionals to avoid any gaps in service to the population.[74]

Importance of Place as a Contextual Factor

The importance of place as a contextual factor is a key component of the Results-Based Logic Model for Primary Health Care.[75] There are contextual factors that must be taken into account when developing a PHC system within a community. Those factors include social, cultural, political, policy, legislative/regulatory, economic, and physical environments.[76] According to the authors, physical environments influence geographic distribution and accessibility of PHC services. The physical environment or place, depending on the community, can reduce or increase health inequities in the population.[77] Consequently, the identification of the factors related to place is crucial to health policy makers and administrators when planning prevention and promotion initiatives.[78]

The significance of place in shaping people's health experiences, according to the report, *How Healthy Are Rural Canadians,* has not always been acknowledged by researchers.[79] Most studies on health have been based in urban environments focused on compositional factors. Compositional definitions of place draw on the characteristics of

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[74] "Results Based Logic Model," 1.

[75] "Results Based Logic Model," 1. The model is a PHCTF-funded evaluation tool for stakeholders involved in the delivery of PHC services

[76] *Results-Based Logic Model*, 7.

[77] *Results-Based Logic Model*, 1.

[78] Paul J. Veugelers, and Shane Hornibrook. "Small Area Comparisons of Health: Applications for Policy Makers and Challenges for Researchers." *Chronic Disease in Canada* 23(3) (2202): Available from: <http://www.phac-aspc.gc.ca/publicat/cdic-mcc/23-3/c_e.html > (21 November 2006): 1.

[79] DesMeules and Pong, iii.

individuals living in a community.[80] Conversely, some researchers suggest that place should have special status as an important factor in the explanation of health equity.[81] In other words, place should not only be viewed in compositional terms but in collective and contextual terms as well. Similar people have similar experiences no matter where they live that can influence health experiences. Collective factors emphasize the socio-cultural and historical factors of a community that impact health experiences.[82]

A contextual view emphasizes factors such as urbanization/rurality, and north/south location.[83] Similarly, aspects like the physical/social environment of a community would be highlighted along with the services provided (private and public) and the social cultural features of a community or neighbourhood.[84] In other words, a contextual approach takes into account a variety of characteristics of an area that might influence the mental or physical health of residents or communities participating in a particular program.[85] From this contextual standpoint, place is a complex concept that is more than a geographic location. It is a community with unique physical, demographic, social, economic, cultural and behavioural dimensions that can have direct and indirect effects on health.[86]

Consequently, these factors (compositional, collective and contextual) are interrelated and should be incorporated into any research.[87] It is not enough to look at the health experiences of individuals as the basis for new initiatives by policy makers;

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[80] Sarah Curtis and Ian Rees Jones. "Is There a Place for Geography in the Analysis of Health Inequality?" Sociology of Health and Illness 20(5) (1998): 647.
[81] DesMeules and Pong, 2.
[82] DesMeules and Pong, 2.
[83] Curtis and Jones, 221.
[84] Curtis and Jones, 221.
[85] Curtis and Jones, 220.
[86] DesMeules and Pong, 118.
[87] DesMeules and Pong, 2.

communities have different opportunities and constraints that can influence the success of a program.[88] Health promotion policies should take into account factors related to places and not only people in order to improve the health of communities and individuals.[89] Hanlon et al. suggest that the emphasis on place will result in better research and policy development on health and health care delivery.[90]

Vertical Collaboration

In a federal state like Canada, overlaps in jurisdiction and interdependence on tax revenues and resources require cooperation and coordination between all levels of government.[91] Intergovernmental or vertical collaboration serves two important functions: it is a form of conflict resolution and a method used to adapt to changing circumstances.[92] The collaboration between the orders of government can be informal (letters, telephone, email) or formal (First Ministers conferences).[93] Vertical collaboration is successful when interaction is based on principles of mutual respect, partnership and equality of status among participating governments.[94] The result is collaborative federalism, an alternative to constitutional change.[95] Some or all of the provinces and territories and the federal government act collectively to achieve national

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[88] DesMeules and Pong,16.

[89] Curtis and Jones, 232.

[90] Hanlon, Neil, Greg Halseth, Rachael Clasby and Virginia Pow.. "The Place Embeddedness of Social Care: Restructuring Work and Welfare in Mackenzie, BC." *Health & Place* 13 (2007), 479.

[91] Ronald L. Watts. *Comparing Federal Systems*. 2d. ed. Kingston: Institute of Intergovernmental Relations, 1999, 57. It can also be termed executive federalism.

[92] Watts, 57.

[93] Watts, 57.

[94] Francois Rocher and Miriam Smith. "Federalism and Health Care: The Impact of Political-Institutional Dynamics on the Canadian Health Care System." Ottawa: Commission on the Future of Health Care in Canada. (August 2002): 25.

[95] David Cameron and Richard Simeon. "Intergovernmental Relations in Canada: The Emergence of Collaborative Federalism. *Publius: The Journal of Federalism*. 32:2 (Spring 2002): 55, 63.

goals while formal constitutional powers remain unchanged.[96] An example of collaborative federalism is the First Ministers Conference of September 2000 in which the provinces/territories and the federal government committed to collaborate in promoting access to several health care areas including primary health care in a cost effective and fair manner.[97] This is cost effective because duplication and overlap are minimized. The effective delivery of PHC services relies on, among other factors, the federal and provincial/territorial governments supporting team-based care and it is therefore a key element of the PHCTF.[98]

The challenge for vertical collaboration is maintaining the balance between cooperative and competitive federalism. If cooperation is emphasized at the expense of competition, the result can be agreements that are watered down and ineffective.[99] In the case of health care delivery, the new relationship stemming from extensive vertical collaboration starting in 2000 between the federal and provincial/territorial governments has created a stable and efficient set of arrangements regarding PHC but not necessarily an effective system.[100] Considerable time has been devoted to intergovernmental processes, disputes, grievances and macro-level discussions at the expense of PHC delivery in communities.[101] If competitive federalism is given precedence, however, the result could be intergovernmental conflict as governments place the interest of their citizens before national goals and objectives. The typical solution is a blend between

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[96] Cameron and Simeon, 55.

[97] Cameron and Simeon, 58.

[98] Health Canada, *About Primary Health Care*, 1. Health Canada, "PHCTF," 1.

[99] Richard Simeon, "Adaptability and Change in Federations." United Nations Educational Scientific and Cultural Organization, 2001: 151. Termed the joint decision trap, there is too much focus on harmony and not enough concern about competing interests.

[100] Candace Johnson Redden, "Health Care Politics and the Intergovernmental Framework in Canada." Ottawa: Commission on the Future of Health Care in Canada. (September 2002): 1.

[101] Redden, 6-7.

cooperation and competition that allows both interdependence and bargaining between the governments.[102]

The provincial norths, (i.e. northern British Columbia) typically have not benefited from vertical collaboration. For the most part, northern BC has been marginalized and disadvantaged by the relationship between the provincial and federal governments.[103] As Wilson and Poelzer suggest, northern BC has an internal colonial relationship with the south; the south benefits from the resources of the north while the north continues to experience boom and bust cycles typical of a resource-dependent area.[104] Consequently, vertical collaboration between local northern governments and the province is minimal; autonomous political representation stops at the provincial level.[105] In turn, vertical collaboration between the northern communities and the federal government is minimal. The result is little input by local governments concerning the delivery of health care services to community members.

Horizontal Collaboration

Horizontal collaboration is grounded on a population health and evidence-based approach; clients, vision, expenses, revenues, tasks and activities are shared by a team of health professionals.[106] It is a dynamic process that focuses on several crucial elements including sharing, partnership, interdependency, and power.[107] There are two

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[102] Watts, 61.

[103] Gary N. Wilson and Greg Poelzer, "Still Forgotten? The Politics and Communities of the Provincial Norths," *The Northern Review* 25/26 (Summer 2005): 12.

[104] Wilson and Poelzer, 12.

[105] Wilson and Poelzer, 12.

[106] Marie-Dominique Beaulieu, "Organizing Primary Reform: Getting Doctors to Work Together and with Others." *Implementing Primary care Reform in Canada: Barriers and Facilitators.* Montreal: McGill-Queen's University Press. (2004): 140.

[107] Nolte, 3.

different types of horizontal collaboration: interdisciplinary collaboration and horizontal community collaboration.

Interdisciplinary collaboration includes physicians, nurses and other health professionals working together to ensure patients receive the care they need in a timely and efficient manner.[108] The objective of the team is to ". . . demand that health care providers from different disciplines collaborate and function interdependently to access, plan and deliver comprehensive and coordinated care and to evaluate outcomes according to the needs of clients, families and communities."[109] This is achieved by defining leadership, coordinating accountability, vision, principles of interdisciplinary collaboration, roles, responsibilities among the team members, frameworks for action and encouraging the development of collaborative skills through post-secondary education and ongoing skill reviews.[110] In structural terms, funding, legislation, regulation and organizational support must be in place before the collaboration is developed.

Horizontal community collaboration includes patients, community members, local government and health care providers working together in a collaborative. The patient is listened to rather than talked at and thus becomes a part of the horizontal collaboration process rather than only a recipient of care.[111] This form of collaboration means that the patient has responsibilities as a member of the collaborative. It also dictates the

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[108] Health Canada, *About Primary Health Care*, 1.

[109] Diane Watson and Sabrina Wong. "Canadian Policy Context: Interdisciplinary Collaboration in Primary Health Care." Vancouver: Centre for Health Services and Policy Research. (February 2005). Available from: <http://www.eicp.ca/en/resources/pdfs/Canadian-Policy-Context-Interdisciplinary-Collaboration-in-Primary-Health-Care.pdf >, 2.

[110] Nolte, 4, 6, 20. Beaulieu, 139-140.

[111] Nolte, 9.

composition of the team.[112] The services are integrated throughout agencies and professions to allow access by the patient.[113]

Horizontal community collaboration is vital to the delivery of PHC services to northern communities where the limited number of health care providers need support in order to counterbalance factors such as poverty, unemployment, social isolation and other factors unique to those communities.[114] Coincidentally, it is the size and isolation of northern communities that enhance horizontal community collaboration.[115] In essence, the location and size brings people closer together. Community members understand what is at stake given their intimate knowledge of each other's experience with the health care system in the community. Consequently, a variety of people from different backgrounds are more motivated to become involved with a horizontal community collaborative than in an urban setting. Collaboration is further strengthened by the fact that in northern communities, there is less rigidity within local bureaucracies. The result is less fragmentation and confusion concerning service delivery and a decreased need for protection of professional turf. Unlike urban health professionals, whose roles can be somewhat narrowed, health care providers in small northern communities have the authority and legitimacy to expand and alter their roles in a manner that is supportive of collaboration.[116]

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[112] Nolte, 5.
[113] Nolte, 8.
[114] Kenneth A. Barter, "Collaboration: A Framework for Northern Social Work Practice," in *Issues in Northern Social Work Practice*. eds Roger Delaney, Keith Brownlee and Kim Zapf (Winnipeg: Hignell Book Printing, 1997): 82.
[115] Barter, 82.
[116] Barter, 83.

Barriers and Facilitators to Horizontal Collaboration

Deber and Baumann's article "Barriers and Facilitators to Enhancing Interdisciplinary Collaboration in Primary Health Care" offers a number of relevant insights into the possible barriers and facilitators related to interdisciplinary collaboration. The article was commissioned by Enhancing Interdisciplinary Collaboration in Primary Health Care (EICP), an organization funded by the Primary Health Care Transition Fund (PHCTF). The mandate of EICP is to produce a body of research through commissioned research reports that examine the move towards collaboration between key stakeholders in PHC field.[117] The article, a systematic review of various sources, including government documents and researchers in the PHC field, summarizes the barriers and facilitators that enhance interdisciplinary collaboration. The fact that it is a literature review makes the article valuable as a framework for analysis. The authors have combined the research into four categories of barriers and facilitators to interdisciplinary collaboration.

The researchers place the barriers and facilitators into four categories: financing/funding, regulation/liability, electronic health records and health human resources. Financing refers to how revenue is generated for a particular program or service, whereas funding relates to the manner in which the funds are used to pay for certain goods and services.[118] Both the private and public sectors finance and deliver PHC services. The public sector includes federal, provincial and local/regional governments while the private sector encompasses for-profit corporations, not-for-profit

[117] Deber and Baumann, Foreword.
[118] Deber and Baumann, 4.

organizations, and for-profit small businesses. It is the public sector that finances 70% of the PHC system in Canada.[119]

The issue of financing is complicated by the broader division of powers within the Canadian federation. Under the Canadian Constitution, it is the responsibility of the province to administer and provide health care services.[120] The federal government is responsible for encouraging national standards with the assistance of financing to the provinces.[121] Even though the provincial governments are responsible for the administration of health care, in order to receive funds that support that system, they must comply with federal terms and conditions as outlined in the CHA.[122]

Financing by the federal government can be a facilitator for several reasons. In the case of the CHA, it can be used to facilitate broader views of health related to PHC. In other words, health care is defined broadly, allowing the provinces to reform PHC within the boundaries of the CHA. For example, the CHA safeguards against any additional charges to the goods and services delivered to patients by health care providers stemming from reforms by guaranteeing accessibility to services.[123] Universality (a component of the CHA) ensures that all PHC reform initiatives are offered the provincial/territorial governments. Comprehensiveness is a facilitator in the sense that services like physician care and hospital and surgical services are protected under the

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[119] Deber and Baumann, 4.

[120] Keith Banting and Robin Boadway, "Defining the Sharing Community: the Federal Role in Health Care." *Money, Politics and Health Care: Reconstructing the Federal-Provincial Relationship*. Eds. Harvey Lazar and Frances St-Hilaire. (Kingston: Institute of Intergovernmental Relations, 2004): 4.

[121] Banting and Boadway, 4.

[122] Deber and Baumann, 16.

[123] Deber and Baumann, 17.

CHA and therefore cannot be de-insured in an effort to reform provincial/territorial health care systems.[124]

There are, however, aspects of financing related to the Canadian Constitution and the CHA that can act as a barrier. Even though the CHA guarantees accessibility, it does not ensure full or equal access, only reasonable access. Universality only applies to provincial health insurance plans but not to provider organizations.[125] If a funding formula moves away from service-based funding to capped approaches, providers are given the freedom to choose who is allowed to enrol.[126] In addition, comprehensiveness as defined in the CHA protects services but it also acts as a ceiling rather than as a minimum level of services.[127]

The funding of new PHC goods and services can be a facilitator or barrier depending on how the funding is implemented.[128] In particular, how the funding is allocated and how much funding is provided is important.[129] For example, depending on the payment mechanism used in a particular situation, it can be either a barrier or facilitator.[130] Payment mechanisms can be grouped into individual and organization payments. Payment can be based on costs, time, services, population and outcome.

Currently, most physicians are paid on a fee-for-service basis.[131] This encourages efficiency in the delivery of services. It can also encourage increased volume of service

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[124] Deber and Baumann, 18.
[125] Nolte, ii. Watson and Wong, 16.
[126] Deber and Baumann, 17.
[127] Cathy Fooks, "Implementing Primary Care Reform in Canada: Barriers and Facilitator," *Implementing Primary care Reform in Canada: Barriers and Facilitators.* Montreal: McGill-Queen's University Press. (2004): 132.
[128] Deber and Baumann, 5.
[129] Deber and Baumann, 5.
[130] Deber and Baumann, 8.
[131] Fooks, 132.

while decreasing the quality of service.[132] Capitation is a payment mechanism based on the population served.[133] The provider is given a fixed payment for each patient thus encouraging the physician to decrease the volume of services provided and increase the amount of time spent with each patient. Most advocates of PHC reform support the move away from fee-for-service to capitation.[134]

Unfortunately, there are several barriers that might impede capitation including lumpy cost structures, volatility of costs and risk selection. [135] Lumpy cost structures are fixed costs that arise in large chunks that may have an impact on the ability of a provider organization to offer services. Volatility of costs can threaten a provider organization if it is small. In other words, the organization may not be able to weather the peaks and valleys of costs related to the practice. Risk selection is the decision by a provider organization to accept patients that will incur the least amount of cost. There is usually a small group of individuals that accounts for the majority of expenditures for a provider organization.[136] Those individuals might be avoided by the organization in order to reduce costs under a capitation formula. This would be particularly troubling for communities that have a high number of people who suffer from poor health.[137] As Rasmussen has argued, the result could be a regional fiscal strategy that includes sending expensive patients to urban centers by closing acute-care beds in smaller communities.[138]

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[132]Deber and Baumann, 9.
[133] Deber and Baumann, 9.
[134] Calnan, and Rodger, 5.
[135] Deber and Baumann, 11.
[136] Deber and Baumann, 12.
[137] Veugelers and Hornibrook, 2.
[138] Ken Rasmussen, "Regionalization and Collaborative Government: A New Direction for Health System Governance," *Federalism, Democracy and Health Policy in Canada.* Ed Duane Adams. Montreal: McGill-Queen's University Press (2001): 252.

Consequently, low population density reduces the opportunity to introduce capitation models to support PHC clinics.[139]

Others suggest that capitation is the solution to the current fee-for-service system that discourages collaboration by supporting solo practice instead of multi-provider organizations, preventative efforts and telephone consultations.[140] The key to the success of capitation is increased financing to better deal with lumpy cost structures, volatility of costs and risk selection.[141] Additional public funding is used to finance interdisciplinary collaboration.[142] Typically, financing for interdisciplinary collaboration is project-based, making it difficult to institutionalize any reform efforts.[143] Northern Health expressed this concern when describing the difficulty of funding primary health care services like telehealth, telephone/email contact, group visits and shared-care. When the PHCTF initiatives first began, there was no Medical Services Plan (MSP) code for the services.[144]

Regulation encompasses the self-regulation of professionals with specialized knowledge.[145] In regards to interdisciplinary collaboration, regulation can be a barrier or even a deterrent by making it difficult for professionals trained in one field to practice and collaborate with other professionals, particularly across provincial lines and training programs.[146]

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[139] Northern Health, The Northern Health Authority`s Primary Health Care Plan, 2003-2006," 8.

[140] Nolte, 23. Calnan and Rodger, 5. Fooks, 132.

[141] Watson and Wong, 16, 20. Ministry of Health Services, "Renewing Primary Health Care for Patients," 4. Deber and Baumann agree that public investment must grow significantly. However, capitation is not the only mechanism to encourage interdisciplinary collaboration, a model should be adapted to each community.

[142] Watson and Wong, 20.

[143] Nolte, ii. Fooks, 132.

[144] Northern Health Authority, *Improving Our Health: Improving Our System. Community Collaborative Project Design.* Prince George: Northern Health Authority, April 2004, 10.

[145] Deber and Baumann, 28.

[146] Deber and Baumann, 32.

Related to regulation is the enforcement of standards of practice and the possible liabilities that it entails.[147] If a professional is not adhering to a certain regulation, the professional is accountable for his/her actions and can expect sanctions by a regulatory body or court system.[148] For example, there is a concern that courts will have difficulty understanding adjusted roles and responsibilities of a provider organization.[149] Typically, the courts assign blame or liability to one person, not a collection of professionals.[150]

In the case of interdisciplinary collaboration, a professional may expose herself to sanctions if the regulatory body she belongs to does not sanction the activity related to the collaboration especially if it is a non-physician service, thus acting as a barrier to interdisciplinary collaboration.[151] This situation can be avoided by a provider organization adopting regulations that address any possible liabilities related to the collaboration including peer review mechanisms, but that would not completely remove the responsibility that the professional has to the original regulatory body.[152] Most professional liability schemes are based on the solo practice of distinct professions with specific educational requirements.[153] This focus on solo practice results in overlapping scopes of practice that do not have a common approach.[154] Increasing specialization and higher educational certification requirements only exacerbate this situation.[155] Northern Health suggests that this barrier can be overcome by ongoing support for collaboration

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[147] Deber and Baumann, 30. Watson and Wong, 14.
[148] Deber and Baumann, 30.
[149] Watson and Wong, 14.
[150] Watson and Wong, 14.
[151] Watson and Wong, 14.
[152] Deber and Baumann, 30. Nolte, 13.
[153] Fooks, 133. Northern Health, *Improving Our Health: Improving Our System. Community Collaborative Project Design*, 10.
[154] Fooks, 133.
[155] Fooks, 133.

and education on collaborative practice for all current and future health care professionals.[156]

Electronic health records are secure electronic records of a patient's past and present health status and care that can be accessed by health care professionals, government officials and the patient in some instances.[157] They are a key component in the facilitation of collaboration in the delivery of PHC services. If user-friendly, these records help facilitate informational and management continuity, in both a one-site collaborative or multiple sites across large distances, by encouraging communication and consultation between health care organizations and institutions, specialists, and experts in teaching hospitals.[158] In particular, they help support population-based approaches like chronic disease management collaboratives and health promotion initiatives by allowing broader access to patient records.[159] The records also facilitate performance measurement planning and evaluation among team members of PHC reform efforts.[160] In practical terms, the electronic records can reduce the need to fax or scan documents, allowing health care professionals more time to spend with patients.[161]

Even though electronic health records are a vital component in the delivery of PHC services, they do not guarantee collaboration.[162] In fact, they may act as a barrier if the health professional participating in the collaboration is unwilling or unable to share

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[156] Northern Health, *Improving Our Health: Improving Our System. Community Collaborative Project Design,*, 10.

[157] Deber and Baumann, 23.

[158] Deber and Baumann, 23. Health Canada. "Key Informants Session on E-Health and Primary Health Care Renewal." Ottawa: Government of Canada. 20-21 April 2004, 9- 11.

[159] *Key Informants Session on E-Health and Primary Health Care Renewal*, 2. *Health Care Renewal in Canada*, 20.

[160] *Key Informants Session on E-Health and Primary Health Care Renewal*, 8, 10.

[161] *Key Informants Session on E-Health and Primary Health Care Renewal*, 11.

[162] Deber and Baumann, 24. *Key Informants Session on E-Health and Primary Health Care Renewal in Canada*, 5.

the patient's records online.[163] The collaborator may not have the access, the hardware, system software, time or skills to create and maintain patient records in a manner that supports collaboration. When first assessing the possibility of developing an electronic health record system in 2003, Northern Health stated that most general practitioners did not have the computer access, technical support, software or skills to maintain the records.[164]

There is also the concern about funding and leadership. Who should be responsible for providing the funding and leadership that is needed to allow collaboration across a region or province?[165] Even if those barriers are removed, the need for privacy remains. The sensitivity of the records requires the creation of safe and secure records that are only accessed by those who are involved in the patient's care.[166] The public must be confident in the security and confidentiality of the records in order for the system to be successful.[167] This issue poses a challenge not only for health care professionals, but for all levels of government. Finally, the introduction of the electronic health records with other innovations may be a significant burden for all of those involved in a newly formed collaborative. The usefulness of the records may not be realized with the incorporation of new approaches that are not implemented fully or correctly.[168]

Just as electronic health records can influence collaboration in the delivery of PHC services, so can the availability of health human resources (HHR) be a factor.

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[163] Deber and Baumann, 25.

[164] Northern Health Authority, *NHA Community Collaborative Pre-Work Package*. Prince George: Northern Health Authority, April 2004, 10.

[165] *Key Informants Session on E-Health and Primary Health Care Renewal*, 12.

[166] Deber and Baumann, 23-24. *Key Informants Session on E-Health and Primary Health Care Renewal*, 12.

[167] *Key Informants Session on E-Health and Primary Health Care Renewal*, 5.

[168] *Key Informants Session on E-Health and Primary Health Care Renewal*, 12.

HHRs are the health professionals that work in the primary health care field.[169] The number and the variety of health professionals depend upon various factors including population base, geography, and available funding.[170] The current and future shortage of health professionals can be both a barrier and facilitator to long-term collaboration.[171] Given the aging workforce, the shortage of HHRs is expected to grow in the future.[172] The Canadian Nurses Association suggests that the inadequate supply of nurses is expected to continue over the next decade if action is not taken to increase the recruitment and retention of nurses.[173] Problems in terms of access and the ability to recruit and retain health professionals are exacerbated in smaller communities.[174] Coupled with these problems is the change of practice patterns. Fewer doctors are taking up general practice, while more doctors are limiting the amount of time they are willing to work.[175] The shortage of general practitioners and the time they are willing to work may be accentuated if the PHC model is poorly designed.[176]

This shortage of health professionals raises the question of whether or not there will be enough practitioners to create and maintain sustainable collaborative initiatives. It is difficult to do so when the workforce is constantly turning over and a national strategy to address the problem is not in place.[177] Nevertheless, the shortage of HHR may be an opportunity to allow innovation such as collaboration between health

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[169] Deber and Baumann, 31.
[170] "Results Based Logic Model," 1.
[171] Deber and Baumann, 32.
[172] Health Council of Canada. *Health Care Renewal in Canada: Clearing the Road to Quality.* Ottawa: Health Council of Canada. February 2006. Available from: <http://www.healthcouncilcanada.ca/docs/rpts/2006/2006_AnnualReport.pdf>, 17-18.
[173] Calnan and Rodger, 6.
[174] Romanow, 162. Northern Health, *PHC Plan 2003-2006*, 3.
[175] Deber and Baumann, 33.
[176] Health Council of Canada. *Health Care Renewal in Canada: Clearing the Road to Quality*, 18.
[177] Nolte, ii. Fooks, 134.

professionals.[178] For instance, the decreasing supply of general practitioners encourages the involvement of other health professionals such as nurse practitioners, which necessitates collaboration between the professionals.[179] There is also an opportunity to increase the number of health non-professionals within the collaborative (e.g. long-term care workers).[180]

Other Facilitators and Barriers

Even though the literature review of the barriers and facilitators to collaboration is extensive, there are other factors not addressed by the researchers that should be taken into account, including the role of the patient in the collaboration. In order for a collaboration to work, the patient must be a willing collaborator. Consequently, they can be both a barrier and facilitator. For example, the patient or client must be involved in her own care especially if she is participating in a chronic disease management collaborative. This requires the patient (and her family if there is one) to be involved in the planning, delivery and assessment of her own care.[181] If this is achieved, the patient acts as a facilitator. However, the ability to participate may be complicated if the patient has multiple chronic health needs requiring her to collaborate with various providers and organizations.[182] The patient may become confused as to where to go for a particular health need and may resist visiting anyone but her general practitioner.[183] The patient may also have unrealistic expectations resulting in increased stress on the system (for

[178] Deber and Baumann, 33.
[179] Calnan and Rodger, 6.
[180] Deber and Baumann, 34.
[181] Nolte, 26.
[182] Nolte, 6.
[183] Nolte, 14.

example, monopolizing a particular health care provider's time).[184] Northern Health expressed the concern that patients may place more value on expensive technologies that present a quick fix instead of treatments that encourage health promotion and prevention.[185] All of these issues are compounded in a small northern community where the services are limited. A system that is already under pressure due to understaffing and lack of specialist services may be stressed from increased patient pressure for PHC services.

Nevertheless, there is evidence that patients are open to new models of care and service. They understand that, given the current health care environment, they would benefit from the participation of a range of providers that encourage health promotion and prevention.[186] There is a conscious movement away from general practitioners as patients use a wide variety of other health professionals for their health needs.

Conclusion

For the purpose of this thesis, the definition of PHC put forward by the federal government and espoused by the PHCTF, is incorporated. That definition stresses the importance of being responsive to community needs by reforming health care services to ensure disease prevention and health promotion. The four categories of barriers and facilitators to interdisciplinary collaboration are also incorporated: financing/funding, regulation/liability, electronic health records and health human resources. Close attention will be paid to the role of local stakeholders (including Northern Health employees and City of Quesnel employees) in vertical collaboration and to the importance of patients,

[184] Nolte, 19.
[185] Northern Health, *PHC Plan 2003-2006*, 11.
[186] Fooks, 133.

their families and non-health professionals in horizontal collaboration. In the next chapter, the methodology for this study and value of a single case study in a northern community are outlined.

Chapter Two: Methodology

The goal of this research is to identify the barriers and facilitators to vertical and horizontal PHC collaboration. The basic framework for analysis is based on Deber and Baumann's article describing four categories of barriers and facilitators to interdisciplinary collaboration: financing/funding, regulation/liability, electronic health records and health human resources.[187]

For the purposes of this study, interdisciplinary collaboration (collaboration between various health care providers) is replaced by horizontal community collaboration with the added dimension of vertical collaboration to reflect collaboration at the community level and the relationships between the three orders of government.[188] Specifically, the replacement reflects not only the creation of the Community Collaborative but the existing collaborative processes found in small northern communities in Quesnel given the realities faced by Quesnel like other small northern communities that include a limited number of health professionals. This allows for analysis of both vertical and horizontal collaboration within a small northern community. The result is an expansion of the four categories of barriers and facilitators to reflect some of the opportunities and challenges facing a smaller northern community. Moreover, other factors, common to any community are taken into account such as the dependency on physicians as gatekeepers, the potential for partnerships with communities and the important role patients play in a community collaborative.

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[187] Deber and Baumann, executive summary.

[188] As suggested in the article by Watson et al's "Results Based Logic Model." . In that article collaboration is described as both vertical and horizontal.

See figure below.

	Existing Categories				New Categories			
Interdisciplinary Collaboration	Finance Funding	Regulation Liability	Electronic Health Records	Health Human Resources				
Horizontal Community Collaboration and Vertical Collaboration	Finance Funding	Regulation Liability	Electronic Health Records	Health Human Resources	Place	Community Participation	Patients	Physicians

Figure One: Framework for Analysis

The method used to conduct this particular research was a case study. A case study usually involves fieldwork, archival investigation and in-depth interviewing.[189] Although the topic and the reasons for a case study approach may vary, the goal of the method is to place the thesis topic into a more general analytical and theoretical context.[190] In other words, the case study may be narrow in scope but it can still be placed within a larger context or set of cases. It is this placement within the larger scope that is a positive attribute of the case study method. As Peters notes "[a] single case, if properly conducted and researched, can be used to expand the analytic knowledge of political science and to illuminate, and even test directly, the theories commonly used in the discipline."[191] Ultimately, the research can have a profound institutional and even societal impact.[192]

Situated within the Northern Health Authority, Quesnel was one of the communities that received PHCTF funds from the provincial government in 2002. A key feature of the community's initiatives was vertical and horizontal collaboration. In

[189] Ronald H. Chilcote, *Theories of Comparative Politics: The Search for a Paradigm Reconsidered.* 2d ed. Oxford: Westview Press, 1994, 14.

[190] B. Guy Peters, *Comparative Politics: Theory and Methods.* New York: New York University Press, 1998, 137.

[191] Peters, 138.

[192] Richard M. Frankel, "Standards of Qualitative Research." 2nd ed. *Doing Qualitative Research.* Eds Benjamin F. Crabtree and William L. Miller. Thousand Oaks: Sage Publications. 1999, 336.

particular, a Community Collaborative was developed that focused on the self-management of chronic diseases like diabetes. It was the strong focus on collaboration with the assistance of the PHCTF that made Quesnel an ideal case for examination by the researcher. Also, the size and geographic location of the community was also conducive to deriving new insights about the need for adequate vertical and horizontal collaboration in rural and remote areas. Although Quesnel is not considered to be rural, it is a northern community in which contextual factors like physical environment, limitations in employment, high injury rates, and above average chronic disease rates as compared to the provincial average influence the delivery and type of primary health care services.[193] The timeline for analysis begins with the initial announcement made at the First Ministers conference in the fall of 2000 and ends at the final transfer of PHCTF funds on March 31, 2006 to the BC government by the federal government with some analysis post-PHCTF. Two years have now passed allowing for reflection on the barriers and facilitators to collaboration in the delivery of PHC services within that timeline.

The value of a single case study is clear when examining the collaboration needed in the delivery of PHC services to a specific geographic area like Quesnel. A key element of PHC is the responsiveness to community needs. An effective PHC system reflects the needs of the community. Even though there are aspects of PHC to be found across the health care system, each community should have a PHC system that takes into account the social, economic, and health contexts found in the community. Indeed, if health inequalities occur within specific geographic areas, it is crucial that they are identified to assist health policy makers in the planning and prioritizing of prevention and

[193] For various definitions of rural see Ray D. Bollman et al, "Definitions of Rural," *Rural and Small Town Canada Analysis Bulletin.* Ottawa: Statistics Canada. (Vol. 3 no 3). Available from: http://www.statcan.ca/english/freepub/21-006-XIE/21-006-XIE2001003.pdf

promotion initiatives in a community.[194] Typically, geographic comparisons of health inequalities use large geographic areas like countries and provinces.[195] Such large case studies, however, fail to disclose the health concerns of local communities as related to primary health care delivery.[196] The use of small single case study in Quesnel creates an opportunity to highlight the importance of research in smaller geographical units. This allows for a better understanding of the role PHC can play in the collaboration between different levels of government and various health care providers, patients and community members.

This study adopts a qualitative approach rather than a quantitative approach given the type of sources referred to and the fact that the study was not an evaluation of PHC services in Quesnel. Both primary and secondary sources were consulted. Ethics approval to gain access to these resources was obtained from the University of Northern British Columbia (UNBC) Research Review Committee (see Appendix One) and the Northern Health Research Review Committee (see Appendix Two). A qualitative analysis represents a more practical and economical approach to the research question.[197] Although quantitative research like large scale surveys are useful, they can be expensive to conduct and time consuming.[198] Additionally, the type of research that was done, a single case study, was also a determinant of method. Therefore, it was decided that a qualitative approach that extensively relied on secondary and primary sources was the best choice under the circumstances.

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[194] Veugelers and Hornibrook, 2.
[195] Veugelers and Hornibrook, 2.
[196] Veugelers and Hornibrook, 2.
[197] David J. Edwards, "Types of Case Study Work: A Conceptual Framework for Case-Based Research." *Journal of Humanistic Psychology* 38(3) (1998): 337.
[198] Edwards, 337.

Secondary sources are materials that are collected and analyzed by other individuals that provide analysis of primary sources.[199] It is the researcher who decides the scope and methods for the written information. The most common secondary sources utilized by political scientists are texts and journal articles. For the most part, they are peer reviewed and based on theories and ideas, which can then be applied to a particular topic. One can then choose a theory or idea that is relevant to the thesis. The opposite may also occur as the basis of the thesis could be the rejection of the ideas presented in the literature. It is important to be aware of the motivation and bias of the writer(s) of the primary and secondary sources. For instance, an author may write for an institute or organization that demands compliance with the organization's views.[200] It was with these considerations that secondary sources were analyzed. Every effort was made to ensure a balanced approach to the research.

Secondary sources of interest in this study were materials that defined PHC, PHC reform in northern settings, barriers and facilitators to collaboration, and vertical/horizontal collaboration any report of document produced by the federal or provincial governments. The federal and provincial governments have published on their websites, documents outlining their perspective on PHC administration. Although the documents are free of secondary analysis, the objectives of the government alter the information found in the documents. In other words, it was in the best interests of each government to assert that its approaches were the best path chosen. Thus, the opinions contained in the documents reflected these goals. Furthermore, media releases by both orders of government have clear agendas that must be considered. The researcher

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[199] Mary-Ellen Kelm. "Lecture Ten: Oral History," *UNBC* Internet course. *History 200 Lecture Notes*. (Winter 2003): 2.

[200] Kelm.: 2.

believed that it was highly unlikely that a government would criticize its own policies and arrangements, thus they are considered secondary sources.

Nevertheless, government documents, including those found on government websites, had considerable value for the researcher. Documents pertaining to the PHCTF funding guidelines, objectives, and definitions were utilized. Also used were any reports concerning PHC and vertical/horizontal collaboration such as interim and final reports by the federal and BC governments and Northern Health. Federal and provincial news releases were also examined. Likewise, any written materials given to Community Collaborative members including pre-work packages and multi-year plans were obtained by the researcher. The researcher benefited from the performance measurement component of the PHCTF objectives. Several reports written by the federal and provincial governments, Northern Health and the Ministry of Health outlining the development, progress and completion of the initiatives were at the disposal of the researcher.

From a methodological viewpoint, the review of secondary sources was a necessary first step in the research process. It was important to establish what had been said on this topic and where the gaps were in the literature. From this the researcher was given the background necessary to conduct an analysis of the factors that influence collaboration.

Primary sources are raw materials including letters, diaries, legislation, legal agreements, and treaties that are within the timeline of inquiry.[201] Considered untouched, they allow researchers to make conclusions without the interference of other researchers.

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[201] Kelm, 1.

Yet, like secondary sources, primary sources are constructed to reflect the intentions of the author(s). The researcher was given access to an interview of the primary health care coordinator (PHC-Coordinator) by a PHCTF funded evaluator. Northern Health interviewed all of the PHC-Coordinators interviewed as part of the overall evaluation of PHCTF initiatives in the Northern Health Authority.

One type of primary source that was of tremendous value to the researcher was the Northern Health Community Collaborative Monthly Practice Reports compiled by the PHC-Coordinator. The reports are summaries of all the initiatives being worked on by the Community Collaborative. Each of the Community Collaborative team members would from time to time contribute to the reports by submitting required information to the PHC-Coordinator who would then prepare the reports. The reports were divided into five sections: Team Information, Key Measures, Description of Tests and Changes, List of Changes Implemented and Summary of Results.[202] The structure of the reports was based on the Breakthrough Series Learning Model that was taught to all of the Community Collaborative members at the beginning of the initiative.[203] Community Collaborative members are asked three questions: What are we trying to accomplish? How will we know that a change is an improvement? And, finally, what changes can we make that will result in improvement? The three questions were the basis of performance improvement. The methodology for performance improvement was a PDSA cycle. Community Collaborative members (P)lanned, (D)id, (S)tudied, and (A)cted based on how they answered the three questions. The monthly practice reports were formatted to

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[202] Northern Health, *Community Collaborative Monthly Practice Reports*. July 2005.

[203] Northern Health. *NHA Community Collaborative Pre-Work Package*. Prince George: North Health. April 2004, 22.

reflect the four steps in the cycle. Community Collaborative members handed in their PDSA sheets to the PHC-Coordinator who then compiled them into one report.

The researcher was given full access to the reports by the PHC-Coordinator. All of the reports were sent to the researcher via email. Even though the reports were given the title "monthly," in actual fact several months would often pass without a report. The reason for the gap was the busy schedule of the PHC-Coordinator. To compensate, the PHC-Coordinator would write a monthly practice report that covered all of the months missed (e.g. one report was dated May 2004 – January 2005). When this occurred, the report was substantially larger (40 to 50 pages). The reports were important to the research because they were essentially journals of the Community Collaborative members. Initiatives were described in great detail in order to complete the four cycles of the Breakthrough series. The researcher was given access to materials written by people who were no longer part of the collaborative. It was clear that substantial time and effort was put into the reports by the PHC-Coordinator.

The quality and quantity of the monthly practice reports were reasons why the researcher decided not to conduct key informant interviews. The volume of information from the reports, coupled with the difficulty of arranging interviews, and personal connections the researcher had with key informants resulted in the decision to not rely on key informant interviews. It became evident to the researcher that interviewing Community Collaborative members would be difficult. Northern Health was very reluctant to allow any time for interviews. There was also the issue of the personal connections the researcher had with several of the Community Collaborative members and PHC staff. Every effort had to be made to not take advantage of the researcher's

personal connections in a manner that was unethical. By not conducting interviews and instead relying on written materials to which Community Collaborative members contributed, the researcher avoided that ethical dilemma.

If questions arose from the reports, the researcher emailed either the PHC-Coordinator or the manager, to clarify a detail or piece of information. All correspondences with the PHC-Coordinator and the manager were saved and handled as if they were key informant interviews. Hence, copies of the correspondence were made and placed in a locked filing cabinet at the UNBC South-Central campus. The same procedure was in place for the monthly practice reports. All of the reports were locked a filing cabinet to which only the researcher had access. Given the personal information contained in the reports, the researcher decided not to identify anyone by name. The data collected for the study, including the monthly practice reports, the interview of PHC-Coordinator by Northern Health and any correspondence, will be destroyed five years after the completion of the thesis.

The data obtained from the monthly practice reports was used to either support or discount any hypothesis that the researcher developed concerning the research question(s). The data collected were used solely for this study. The data were discussed with the researcher's thesis supervisor in face-to-face conversations.

Conclusion

A key feature of a thesis is the methodology employed by the researcher. These techniques and tools reflect not only the goals of the topic but also the values and beliefs of the author and other participants. For the purpose of this thesis, a case study approach that utilized various primary and secondary sources and the framework for analysis was

incorporated by the researcher. The result was an examination of the barriers and facilitators to vertical and horizontal collaboration for which the details will be described in the next chapter and thus expanding upon the limited research that has done on the factors at play in rural and northern communities.

Chapter Three: Context

Introduction

Quesnel as a case study must be understood within the context of primary health care delivery in the Northern Health Authority, British Columbia and Canada. The Community Collaborative is influenced by contextual factors such as geographic location, economic conditions, demographics and by the decisions made at the local, provincial and federal levels of government. The purpose of this chapter is to outline this context. Part one will review the development of the health care delivery system in Canada and how it is influenced by vertical collaboration between the two orders of government. Part two and three describe the evolution of primary health care (PHC) delivery in Canada and British Columbia including the creation of the Primary Health Care Transition Fund (PHCTF). Part four describes the factors unique to Quesnel that explain the need for a certain type of PHC system that reflects the needs of the community. Finally, part five describes the PHC system that was created in Quesnel with the use of PHCTF and the current state of those initiatives based on the four barriers/facilitators: finance/funding, regulation/liability, electronic health records and health human resources.

Health Care Delivery in Canada and Vertical Collaboration

Historically, the health and social needs of Canadians were considered to be a private matter.[204] The provision of services was left to various charities including church groups; the state only assisted in emergencies and exceptional circumstances.[205] It was not until the twentieth century that the debate over jurisdiction of health and welfare took

[204] Rocher and Smith, 5.
[205] Rocher and Smith, 5.

place.[206] Nevertheless, there are certain powers concerning the delivery of health care given to each level of government that are rooted in the *Constitution Act, 1867.* For example, Section 92 (7, 13, and 16) specifically grants the provinces the authority over hospitals, property and civil rights, and issues of local and private matters.[207] In other words, the provinces have exclusive jurisdiction over the delivery of health care allowing them to make principal decisions in how health care is administered and delivered.[208]

The federal government, on the other hand, has a limited formal role that is realized in several different ways. The first is criminal law, specifically the *Food and Drug Act, Narcotics Control Act* and the *Tobacco Products Control Act.*[209] Each act gives the federal government the power to oversee public health as outlined in each piece of legislation. Secondly, Ottawa garners influence by funding health research and information. Finally, the financing of health care expenditures in the form of federal transfer payments and the principles outlined in the *Canada Health Act* allow the federal government to influence the way in which the provinces administer health care. Allocated through various means, Ottawa is able to use these funds as a bargaining tool when negotiating with the provinces and territories.

In the postwar period, formal and informal collaboration between the federal government and the provinces helped to create the current health care system.[210] Starting with the *Hospital Insurance Act, 1947* and *Diagnostic Services Act, 1957*, the federal government shared the costs associated in the administration of hospitals with the

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[206] Banting and Boadway, 4.
[207] Banting and Boadway, 4.
[208] Antonia Maioni, "Federalism and Health Care in Canada." *Health Policy and Federalism: A Comparative Perspective on Multilevel Governance.* Eds. Keith G. Banting and Stan Corbett. Kingston: Institute of Intergovernmental Relations (2001): 189.
[209] Banting and Boadway, 5.
[210] Cameron and Simeon, 51.

provinces.[211] Both agreements are examples of successful vertical collaboration. Collaboration continued between the two levels of government when a more formal agreement (*Medical Care Act*) was introduced in 1966 establishing a cost-sharing plan between the provinces and the federal government.

By the early 1970's, however, the federal government became worried about the ever-expanding provincial health care budgets while the provincial governments wanted more freedom to create and maintain programs as it saw fit, especially given the financial pressures they were facing. The result was the necessity for the provinces and the federal government to negotiate health care financing. Hence, "[a]fter extensive federal-provincial negotiations, a compromise emerged in the form of the *Federal-Provincial Fiscal Arrangements and Established Programs Act, 1977*."[212] In short, the Act ended the federal government's open-ended commitment to pay for half of the expenditures related to health care delivery and the necessity of provincial adherence to federal conditions.[213]

The *Canada Health Act, 1984* (CHA) unified hospital and medical insurance legislation.[214] Unfortunately, the harmonious intergovernmental fiscal relations experienced with the CHA and other agreements did not last. The election of the federal Liberal Party in 1993 brought with it drastic changes to financing of the health care system (Canada Health and Social Transfer).[215] Instead of separate funding for health care, provinces received from the federal government, block funding for all social welfare

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[211] Lazar et al, "Federal-Provincial Relations and Health Care," Ottawa: Commission on the Future of Health Care in Canada. November 2002, 253.
[212] Lazar et al, 255.
[213] Banting and Boadway, 11.
[214] Lazar et al, 256.
[215] Lazar et al, 257.

programs including health care.[216] The provinces and territories found themselves in a difficult situation; their funding for health care had diminished significantly even though their costs continued to grow. On the positive side, decreased federal funding (which gives the federal government the ability to dictate health policy) gave the provinces a greater sense of autonomy and responsibility, thus setting the stage for improved vertical collaboration between the two levels of government.[217]

The first formal agreement to come about after the power shift was the Social Union Framework Agreement (SUFA). The agreement was the result of the first ministers working together, starting in 1995, to curtail the federal government's spending power. Mechanisms to ensure partnerships, accountability, transparency and performance measurement were put into place.[218] Several agreements concerning health care have since been created including the Action Plan for Health System Renewal that came about at the September 2000 First Ministers conference. The Action Plan resulted in the PHCTF, an initiative agreed upon by all of the provinces and the federal government.[219] The agreement recognized each level of government's jurisdiction over health care delivery. It also put into place mechanisms for vertical collaboration such as the sharing of best practices among provinces and with the federal government.

Primary Health Care in Canada

The PHCTF was not the first initiative to address primary health care delivery in Canada, nor was the First Ministers conference in September 2000 the first time that the federal and provincial governments discussed the matter. As early as 1995, the federal

[216] Banting and Broadway, 12.
[217] Cameron and Simeon, 54.
[218] Rocher and Smith, 17.
[219] Rocher and Smith, 13.

government funded the Supporting Self Care Project.[220] Its objective was to encourage awareness and action by physicians to assist patients with their self-care needs. In 1997, the National Forum on Health recommended that the health care system be reoriented to encourage primary health care delivery as the foundation for the integration of services.[221] The National Forum resulted in the creation of the Health Transition Fund.[222] The $150 million fund supported 140 projects from 1997 – 2001 across Canada including British Columbia, to test various priority areas including PHC in a health care setting.[223] The difference between the Health Transition Fund and the PHCTF was the long term impact of the funds. The purpose of the fund was to be experimental in four priority areas, whereas the PHCTF focused on sustainable changes to the health care system.[224] The Health Transition Fund was a collaborative initiative between the federal and provincial governments. A working group composed of representatives from each government guided the program for its duration.[225]

It was the progress made with the assistance of the Health Transition Fund that led to the creation of the PHCTF. In September 2000, the first Ministers met in Ottawa to discuss health care. The result of this meeting was the Action Plan for Health System Renewal.[226] The Plan set aside $800 million from the federal government for the

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[220] Health Canada, *Collaborative Care*. Ottawa: Government of Canada. Available from: http://www.hc-sc.gc.ca/hcs-sss/hhr-rhs/collabor/index_e.html > (23 August 2006): 1.

[221] Health Canada, *Health Human Resource Strategy*. Ottawa: Government of Canada. Available from: <http://www.hc-sc.gc.ca/hcs-sss/hhr-rhs/strateg/index_e.html > (23 August 2006): 1.

[222] McKendry, Rachael et. Al. *Single and Group Practices Among Primary Health Care Physicians in British Columbia.* August 2006. Vancouver: Centre for Health Services and Policy Research. Available from: < http://www.chspr.ubc.ca/files/publications/2006/chspr06-14.pdf>, 1.

[223] Health Canada, *About the Health Transition Fund*, 1.

[224] Health Canada. *Health Transition Fund, Frequently Asked Questions*. Ottawa: Government of Canada. Available from: <http://www.hc-gc.ca/hcs-sss/finance/htf-fass/faq/index_e.html > (14 April 2007): 2.

[225] Health Canada. *Health Transition Fund, Frequently Asked Questions*, 2.

[226] Health Canada, *Primary Health Care Transition Fund.*

PHCTF.[227] The fund built upon the successes of Health Transition Fund funded pilot projects. The first ministers decided that any changes to primary health care had to be permanent. The fund was time-limited (2000 – 2006) and was intended to support the transitional costs associated with sustainable changes to primary health care delivery systems in Canada.[228] The fund was viewed as an opportunity for all levels of government to collaborate with Canadians, communities and service providers.[229] The five principles of the PHCTF were:

1. To increase the proportion of the population with access to primary health care organizations which are accountable to for the planned provision of comprehensive services to a defined population.

2. To increase the emphasis on health promotion, disease and injury prevention, and chronic disease management.

3. To expand 24/7 access to essential services.

4. To establish multidisciplinary teams so that the most appropriate care is provided by the most appropriate provider, and

5. To facilitate coordination with other health services (such as specialists and hospitals).[230]

Three funding envelopes were created: provincial/territorial, national and aboriginal, all under the care of the federal government.[231] An application for funds had to be made to the Crown thus giving it the right to reject or accept any proposal. If an application from a government or organization was approved, the funding was dispersed by the federal government annually over a three year period. The national envelope

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[227] Cameron and Simeon, 58.

[228] Health Canada, *Primary Health Care Dissemination Principles*, 1.

[229] Canadian Intergovernmental Conference Secretariat. *First Ministers Meeting, Communique on Health*. September 11, 2000. Ottawa: Government of Canada. Available from: http://www.scics.gc.ca/cinfo00?800038004_ehtml > (9 February 2005): 5.

[230] Health Canada. *Objectives of the Primary Health Care Transition Fund*, 1.

[231] Health Canada, *Primary Health Care in Canada*. News Release. Ottawa: Government of Canada. Available from: <http://www.hc-sc.gc.ca/english/media/releases/2002/2002_77bk.htm >, 1.

created opportunities for programs and research at a national level that advanced PHC including research done by the Centre for Health Services and Policy Research. The goal of the Aboriginal envelope was to support any transitional costs in the implementation of new programs that increased access to PHC services by Aboriginal peoples.

The objective of the provincial/territorial envelope was to provide funding to the provinces and territories for initiatives that accelerated and broadened PHC services in Canada.[232] Specifically, the fund supported transitional costs that were consistent with the five common objectives of the PHCTF. Provincial/territorial proposals had to include the background, goals and objectives of the project, description of activities, progress indicators, a global budget for each fiscal year, and a detailed budget for the first fiscal year.[233] For example, the BC government sent in a proposal for, and received, $74 million in the summer of 2001.[234] Even though the initiatives were federally funded, the provincial government was ultimately responsible for its own strategy and use of the fund in collaboration with PHC providers and other stake holders.[235]

While the two orders of government were addressing the possibility of improving PHC service delivery in Canada, two reports on health care were published in 2002: the Romanow Report and the Kirby Report. The Romanow Report, which dedicates a chapter to primary health care service delivery in Canada, suggested that PHC is essential to transforming the health care system.[236] It also suggested that a health care system

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[232] Health Canada, *Primary Health Care Transition Fund Program Guidelines*, 4.

[233] Health Canada, *Funding Guidelines*. Ottawa: Government of Canada. Available from: <http://www.hc-sc.gc.ca/phctf-fassp/english/progcrit.html> (19 April 2006): 4 – 5.

[234] Health Canada, *Minister Rock Announces British Columbia Primary Health Care Fund.* July 27, 2001. News Release. Ottawa: Government of Canada. Available from: <http://www.hc-sc.gc.ca/english/media/releases/2001/2001_81e.htm> (26 October 2004), 1.

[235] Health Canada, *News Release, July 27, 2001*, 4.

[236] Romanow, 116.

focused on PHC made sense given the diversity of communities and people in Canada.[237] The result would be a national PHC system that allows for collaboration between governments.[238] The Report expressed frustration at how slow and fragmented the changes to the PHC system had been in recent years.[239] It proposed that a health council be created to track and measure progress in the form of independent reports accessible to Canadians.[240] The health council has since been formed and has addressed PHC delivery in Canada in a series of reports.[241]

The Kirby Report identified several weaknesses with the primary health care system in Canada: fragmentation, inefficient use of health care providers, barriers to access, poor information sharing, misalignment of incentives and lack of emphasis on health promotion. The Report recommended a multidisciplinary PHC team approach that embraced health promotion and illness prevention.[242] The Report also encouraged all levels of government to cooperate to ensure changes were made to the health care system.[243] Another recommendation was further funding by the federal government to the provinces for PHC services: the Report suggested that PHCTF was not enough.[244]

In 2003, the first Ministers met again to discuss health care. At the end of the meetings an agreement was made that built upon the September 2000 agreement. This agreement was called the 2003 First Ministers Accord on Health Care Renewal. Additional funding was given to the provinces ($34.8 billion) over five years to improve

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[237] Romanow, 119.
[238] Romanow, 126.
[239] Romanow, 116.
[240] Romanow, 117.
[241] Health Council of Canada. Health Care Renewal in Canada: Measuring Up? 2007, Health Care Renewal in Canada: Clearing the Road to Quality 2006, Health Renewal in Canada: Accelerating Change, 2005.
[242] Kirby, 79.
[243] Kirby, 2.
[244] Kirby, 91.

access to health care including primary health care services.[245] Another agreement was made between both levels of government in 2004. At the First Ministers Meeting on the Future of Health Care, five principles were agreed upon by the provinces/territories and the federal government in the 10 Year Plan to Strengthen Health Care. The governments also agreed to a list of items on which to work including prevention, promotion and public health.[246] Once again First Ministers met in 2005 and 2006 to discuss and implement a national pharmaceutical strategy, collaborative care and a human health resources strategy.[247]

In the spring of 2005, the federal government published an interim report on PHCTF initiatives. The report stated that in the province of British Columbia, an information sharing system had been created supporting a range of practice models including patient care networks, electronic medical summary and healthy living and chronic disease management strategies.[248] Patient Care Networks are arrangements between physicians to share records and on-call coverage, usually electronically. Electronic Medical summaries (or electronic health records) are information encrypted and transferred electronically to various PHC providers. Healthy Living and Chronic Disease Management Strategies is a program in which patients take an active role in the

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[245] Health Canada, *2003 First Ministers Accord on Health Care Renewal.* February 3, 2003. Ottawa: Government of Canada. Available from: < http://www.hc-sc.gc.ca/hcs-sss/hhr-rhs/strateg/accord_e.html> (23 August 2006): 1.

[246] Health Canada, *First Minister's Meeting on the Future of Health Care 2004.* Ottawa: Government of Canada. Available from: <http://.hc.gc.ca/hcs-sss/delivery-presentation/fptcollab/2004-fmm-rpm/index_e.html > (14 June 2007): 1.

[247] Health Council of Canada. Health Care Renewal in Canada: Measuring Up? Ottawa: Health Council of Canada. February 2007. Available from: < http://www.healthcouncilcanada.ca/docs/rpts/2007/HCC_MeasuringUp_2007ENG.pdf>: 6.

[248] Health Canada, *Primary Health Care Transition Fund Interim Report.* April 2005. Ottawa: Government of Canada. Available from: < http://www.hc-sc.gc.ca/hcs-sss/alt_formats/hpb-dgps/pdf/phctf-fassp-interm-provisoire-eng.pdf>: 10.

management of their health by participating in the decision making process with their PHC provider.[249]

Primary Health Care Services in British Columbia

As early as 1990, primary health care delivery was an area of concern for the British Columbia government. The Seaton Report, commissioned by then Premier Bill Vander Zalm, suggested that a greater emphasis was needed on the prevention of disease and illness.[250] The report also proposed that the administration of health care in the province was fragmented and unresponsive to the needs of its citizens.[251] In 1991, the newly elected New Democratic government embraced some of Seaton's recommendations by creating the New Directions for a Healthy BC Initiative or the more common name, the "Closer to Home" program.[252] The purpose of the initiative was to decentralize the control and delivery of health care, thus allowing for community input and coordination to ensure that the health care services offered to the community reflected the needs of its citizens. In other words, it involved a move away from curative to community care. The result was the creation of 20 regional health boards and 85 community health councils.[253] The role of the regional health board was to encourage local input into the decision-making processes and collaboration between the local and provincial governments.

The infrastructure resulting from the Closer to Home Initiative stayed in place until December 2001 when the Liberal Party came to power. All of the regional health

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[249] Health Canada, *Primary Health Care Transition Fund interim Report*, April 2005, 10.

[250] Weller Geoffrey R.. 'Reforming Medicare: British Columbia's Closer to Home Initiative." Presented at the 1995 Biennial Conference of the Association For Canadian Studies (November 15-19, 1995): 2..

[251] Weller, 2.

[252] Weller, 5.

[253] Weller, 7.

boards and community councils were replaced with one Provincial Health Authority and five geographic health authorities: Northern, Interior, Fraser, Vancouver Coastal, and Vancouver Island.[254] There are fifteen Health Service Delivery Areas (HSDA) within the five authorities. HSDAs in the Northern Health Authority are: Northern Interior, Northwest and Peace Liard.[255] The Provincial Health Authority became responsible for province-wide programs and highly specialized service while the regional authorities became primarily responsible for creating programs that respond to the needs of the regions they serve. The regional authorities also have the responsibility to ensure that each program is properly funded and managed.[256] The HSDAs are responsible for managing the delivery of health services, meeting the objectives set by the authority and ensuring community input into planning and evaluation.[257] Also, the Ministry of Health was divided into the Ministries of Health Services and Health Planning, a decision later reversed by the same government.

It was less than a year before the 2001 election that all of the provinces agreed to the Action Plan for Health System Renewal, the catalyst for the PHCTF. BC's New Democratic government agreed to the terms of the fund but it was up to the BC Liberal government to create sustainable PHC programs in the province with the $74 million dollars given to them by the federal government. The province's share of the funding was spread over four years, 2002 – 2006.[258] Health authorities received 93% of the money given to the province to develop and manage PHC renewal initiatives that

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[254] Ministry of Health Planning. *A New Era for Patient-Centred Health Care: Building a Sustainable, Accountable Structure for Delivery of High Quality Patient Services*. Victoria: Province of British Columbia. Available from: < http://www.health.gov.bc.ca/socsec/pdf/new_era_sustain.pdf>: 9.

[255] Ministry of Health Planning. *A New Era for Patient-Centred Health Care,* 9.

[256] Ministry of Health Planning. *A New Era for Patient-Centred Health Care,* 10..

[257] Ministry of Health Planning. *A New Era for Patient-Centred Health Care,10.*

[258] Ministry of Health, *Primary Health Care Transition Fund,* 1.

responded to local and regional challenges and needs.[259] A call for proposals, based on the provinces' PHC renewal guideline and framework, was sent to the health authorities in 2002.[260] The guidelines addressed the objectives, evaluation requirements, minimum criteria for receipt of goods, planning, financial allocation and payment approach and reporting requirements and schedule.[261]

The objective of the provincial government, within the PHCTF guidelines, was to ". . . ensure the sustainability and affordability of British Columbia's primary health care system."[262] The health ministries were required to administer PHCTF funds, coordinate, monitor and evaluate all programs resulting from the fund and participate on national and jurisdictional levels in an effort to share PHC renewal successes and failures.[263] The health authorities were expected to develop and implement the PHC renewal strategies within the context of the PHCTF while working with PHC providers, patients and communities. Participation included management and evaluation of programs and strengthening collaboration between PHC providers and specialists.[264] All planning, management, use and evaluation of the initiatives had to adhere to already established service plans and provincial health goals.[265]

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[259] Ministry of Health Services, *Questions and Answers about the PHCTF*. Victoria : Province of British Columbia. 3 January 2003. Available from: <http://www.healthservices.gov.bc.ca/phc/pdf/ha_qas.pdf> (20 April 2006): 3. Ministry of Health, *Primary Health Care Transition Fund*, April 19, 206.

[260] Ministry of Health Services, *Health Authorities*. March 1, 2004. Victoria: Province of British Columbia. Available from: <http://www.healthservices.gov.bc.ca/phc/infhas.html > (11 February 2005).

[261] Ministry of Health, *Health Authorities, 1.*.

[262] Health Canada, *British Columbia Envelope*, 1.

[263] Health Canada, *Questions and Answers about the PHCTF*, 2.

[264] Health Canada, *Questions and Answers about the PHCTF*, 2.

[265] Ministry of Health Services. *Primary Health Care Renewal in British Columbia*. May 2004. Victoria: Province of British Columbia. Available from: < http://www.llbc.leg.bc.ca/public/PubDocs/bcdocs/373556/renewal_BC_may2004.pdf>: 1.

Chronic Disease Management (CDM) in British Columbia involved health professionals working together with patients to develop self-management strategies.[266] The objectives of CDM included staged implementation of chronic disease strategies in British Columbia, the development of products and initiatives to ensure the improvements in care and health of patients, and technological innovations like the online registry of a patient's management of the chronic disease.[267] The provincial government identified four main shifts needed to successfully manage chronic diseases: a move away from the focus on health care providers to patient self-management, reacting to illness to planned approach to care, habitual use of standard practices to evidence-based planning of care, and data-burden to patient-centred care.[268] In other words, this involved a move away from a reactive health care system that focuses on physicians to one that places the patient at the center of delivery with the assistance of evaluative and technological tools such as patient registries/support groups and interdisciplinary care.

Primary Health Care Services in the Northern Health Authority

The BC government's framework outlined the health authorities' strategies and expected outcomes. Strategy A supported a range of practice models including networks, shared care, access and continuity in rural and urban locations and primary health care organizations.[269] Strategy B focused on improving health outcomes by creating chronic

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[266] Ministry of Health Services. *Chronic Disease Management*. Victoria: Province of British Columbia. 21 July 2005. Available from: <http://www.healthservices.gov.bc.ca/cdm/index.hmtl > (9 November 2005): 1.

[267] Ministry of Health Services, *Chronic Disease Management*, 1.

[268] Ministry of Health, *The Challenge of Chronic Disease Management in British Columbia.* Victoria: Province of British Columbia. 21 July 2005. Available from: < http://www.health.gov.bc.ca/cdm/practitioners/challenge.pdf> (9 November 2005): 1 – 2.

[269] Ministry of Health Services, *British Columbia's Primary Health Care Transition Fund, Framework for Health Authorities, Appendix A*. Victoria: Province of British Columbia. 18 August 2003.

disease patient registries, clinical practice guidelines and quality improvement collaborations.[270] Strategy C targeted professional and organizational development, evidence and evaluation.[271] The initiative was expected to result in effective interdisciplinary teams working together to create linkages among primary health providers, to create a measureable or positive impacts on patient and provider satisfaction and to strengthen health authority leadership in PHC renewal.[272] The framework stressed that a one-size-fits-all model was not appropriate for PHC renewal in British Columbia.[273] The health authorities needed to develop a variety of initiatives to suit the needs of the region in question.[274] For example, in contrast to communities in southern British Columbia, northern communities like Quesnel face a shortage of health care professionals, higher injury and disability rates, seasonal employment, limited access to specialized health care services, harsh climate and physical and emotional isolation.[275] These are the contextual factors that shape the development of PHC services in Quesnel.

The Case of Quesnel

Quesnel is one of the communities leading the way in the development of community collaboratives in British Columbia. With a population of 13,727 (22,449 including residents outside of municipality), Quesnel is the 37th largest community in British Columbia and the 5th largest in the Northern Health Authority (Prince George,

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Available from: http://www.healthservices.gov.bc.ca/phc/pdf/appendixa_framework.pdf> (20 April 2006): 3 -6.

[270] Ministry of Health Services, *Framework for Healthy Authorities*, 6.

[271] Ministry of Health Services, *Framework for Healthy Authorities*, 9.

[272] Ministry of Health Services, *Framework for Healthy Authorities*, 3 - 6, 9. Health Canada, *British Columbia Envelope*, 1.

[273] Ministry of Health Services, *Primary Health Care Renewal in British Columbia*, 1.

[274] Ministry of Health Services, *Primary Health Care Renewal in British Columbia*, 1.

[275] Ministry of Health Services, *Framework for Healthy Authorities*, 6.

Terrace, Fort St. John and Prince Rupert are larger).[276] Located 660 kilometres north of Vancouver in the Northern Interior region, Quesnel is a community that relies heavily on the surrounding physical environment for its economy.[277]

The forest industry is the single most important economic sector in Quesnel in relation to employment and community income with agriculture coming in a distant second; 45% of all the jobs in Quesnel are based in the forest industry including logging, forest services and wood processing.[278] The only employer that compares to the forest industry is the public sector.[279] Given the prominence of the forest industry in Quesnel, the average income is about the same as the provincial average even though there is a lower proportion of university educated workers in the community.[280] Most workers are educated in the trades and other technical occupations. The forest industry is currently threatened by the mountain pine beetle infestation. The Quesnel Forest District stands to lose up 70% of its timber to the mountain pine beetle. In this regard, the town is the single greatest impacted community in northern British Columbia.[281]

All of those contextual factors have an impact on the delivery of PHC services in Quesnel. The dependency on the forest industry and the inherent danger associated with forest sector jobs mean that the rates of injury on the job are higher in Quesnel like other similar northern communities compared to urban communities with a more diverse

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[276] Watson, Diane, et al, *Planning for Renewal,* 8.

[277] Quesnel Community and Economic Development Corporation. *Quesnel and Area Community and Economic Profile*. Third edition. June 2005. Quesnel: Quesnel Community and Economic Development Corporation, 5.

[278] Ministry of Forests, *Quesnel Forest District: Forest Facts.* Victoria: Province of British Columbia. Available from: <http://www.for.gov.bc.ca/dqu/forest_faqs.htm>

[279] *Quesnel and Area Community and Economic Profile*, 19.

[280] *Quesnel and Area Community and Economic Profile*, 11.

[281] *Quesnel Forest District: Forest Facts.*

economy.[282] The overall health of Quesnel citizens is lower than people living in southern British Columbia.[283] Likewise, Quesnel faces boom and bust cycles like other resource dependent communities in the provincial north. These cycles have an impact on the general health of the citizens in the community. In short, income, education, and occupation are directly related to health, access to the health care system and how people look after themselves.

There are four Aboriginal bands in the Quesnel area: Alexandria, Kluskus, Nazko, and Lhtako Dene (Red Bluff). Of these four bands, 70% of the members live on reserves.[284] First Nations people make up 8.8% of the total population of Quesnel.[285] Migration from other areas of British Columbia can account for much of the population growth in Quesnel.[286] Foreign born residents make up 9.7% of the population while non-permanent residents make up 0.2% of the total population.[287] Adults aged 65 or older account for 10.1% of the population while 33.3% of that group live alone.[288] The ethnic makeup of Quesnel is typical of a northern community in which there is a higher percentage of Aboriginal peoples and a low, if not nonexistent, percentage of non-permanent residents. The result is a population of people whose health needs are high, especially in the area of chronic disease management.

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[282] Northern Health, The Northern Health Authority's Primary Health Care Plan 2003-2006, 3

[283] DesMeules and Pong, 13.

[284] *Quesnel and Area Community and Economic Profile*, 13.

[285] Statistics Canada. 2001 *Community Profile – Quesnel.* Ottawa: Government of Canada. Available from: < http://www12.statcan.ca/english/profil01/CP01/Details/Page.cfm?Lang=E&Geo1=CMA&Code1=952 &Geo2=PR&Code2=59&Data=Count&SearchText=Quesnel&SearchType=Begins&SearchPR=01&B1=All &Custom=>

[286] *Quesnel and Area Community and Economic Profile*, 11.

[287] Statistics Canada Community Profile – Quesnel.

[288] Watson, Diane, et al, *Planning for Renewal,* 12.

In terms of health care service delivery, Northern Health currently employs 550 health care workers in Quesnel.[289] The services offered by the authority include public health, home care support, and mental health. The Eileen Ramsay Public Health Unit (i.e. Quesnel Health Unit) provides a full range of public health nursing services, including (but not limited to) immunizations, parenting services, pregnancy information and support, and tuberculosis testing.[290] Several public health nurses provide services to women at the Luna Women's Wellness Clinic housed at the Women's Resource Centre. Home and community programs include long-term care, home nursing care, physiotherapy and health services for community living.[291] Mental Health - Quesnel offers counselling and oversees the Quesnel Addiction Society and the Quesnel and District Palliative Care Association.[292]

Quesnel has one hospital, the G.R. Baker Memorial Hospital. It has 4 Intensive Care Units, 40 extended care beds and 5 crisis stabilization beds. It also offers space for a physiotherapist, and an ear, nose and throat surgeon. Emergency visits to the hospital average 310 per 1,000 population based on 1998/1999 fee-for-service billing claims physician .[293] In the Northern Health region the average is 359 per 1,000 and 275 in the province as a whole.[294] At the time of the case study, 12 out of 30 physicians who indicate their practices on the College of Physicians and Surgeons' webpage, 8 practice family medicine, 1 practices internal medicine, 2 practice general surgeries and 1

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[289] *Quesnel and Area Community and Economic Profile*, 49.
[290] *Quesnel and Area Community and Economic Profile*, 50.
[291] *Quesnel and Area Community and Economic Profile*, 50.
[292] *Quesnel and Area Community and Economic Profile*, 50.
[293] Watson, Diane, et al, *Planning for Renewal,* 63.
[294] Watson, Diane, et al, *Planning for Renewal,* 63.

practices diagnostic radiology.[295] There are only 2 physicians listed on the website who indicate that they were accepting patients. There are 9.2 physicians per 10,000 citizens as compared to 9.4 in the authority and 8.7 in the province. The rate is higher for nurses but compared to the regional authority and to the province the rate is low. There are 74 nurses per 10,000 Quesnel citizens compared to 77 in the Northern Health region and 94 in the province.[296] Compared to the Northern Health region that spends $196.00 per capita on general practitioner services and the province at $164.00, Quesnel spends $178.00 per capita on these services.[297] Quesnel, like other smaller communities in the provincial north, faces health human resource shortages and disruption of care due to the high turnover. There is also a chronic shortage of nurses in the community that is expected to continue as large numbers of nurses working in Quesnel begin to retire. This despite the fact that a cohort of Nursing students graduate from UNBC in Quesnel every year.

Two optometrists, one optician, two chiropractors, and three physiotherapists practice in private clinics.[298] There is also a naturopath, massage therapist, aroma therapist and acupuncturist working in the community. The number of specialists reflects the state of health human resources in small northern communities like Quesnel. The result is a limited variety of potential members for the Community Collaborative. Moreover, the low number of specialists and the high percentage of visits to the hospital by Quesnel citizens pose a challenge to any new community collaborative.

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[295] College of Physicians and Surgeons of British Columbia. *Physician Search*. Vancouver. Available from: <http://www.cpsbc.ca/cps/physician_directory/search.do > (11 December 2006).

[296] Watson, Diane, et al, *Planning for Renewal,* 49.

[297] Watson, Diane, et al, *Planning for Renewal,* 41.

[298] *Quesnel and Area Community and Economic Profile*, 51.

The health of Quesnel citizens compares favourably within the Northern Health region but not as well with the province. Premature mortality for Quesnel is 3.47 per 1000 persons, Northern Health is 3.41 and the rate for the province is 2.81.[299] The infant mortality rate for Quesnel is 6.34 per 1000 live births, Northern Health is 4.50 and it is 4.19 for the province.[300] In the Quesnel area, 4.99% of the population has diabetes compared to 4.30% in the region and 4.74% in the province.[301] As for socioeconomic risk factors like crime, education concerns, children at risk, and youth at risk, Quesnel places on the high end of medium risk.[302]

Primary Health Care Services in Quesnel

Northern Health administers primary health care delivery in Quesnel. In 2002, the Authority sent a proposal (that was accepted) to the Ministry of Health Planning, requesting $4.2 million of the $74 million given to the province by the federal government Through the PHCTF over three years (2003 – 2006).[303] Northern Health's single most important goal was to provide all residents of the region with access to PHC no matter where they lived.[304] The proposal included underpinning strategies, implementation initiatives, the infrastructure needed and accountability strategies. The purpose of the underpinning strategies was to enhance the already established PHC system in the region.[305]

The rationale behind the two initiatives was to implement change in PHC services in selected communities like Quesnel. Specifically, under the section of underpinning

[299] Watson, Diane, et al, *Planning for Renewal,* 17.
[300] Watson, Diane, et al, *Planning for Renewal,* 17.
[301] Watson, Diane, et al, *Planning for Renewal,* 87.
[302] Watson, Diane, et al, *Planning for Renewal,* 25.
[303] Northern Health Authority, *PHC Plan 2003-2006*, 1.
[304] Northern Health Authority, *PHC Plan 2003-2006*, 1.
[305] Northern Health Authority, *PHC Plan 2003-2006*, 3.

initiatives, $800,000 was set aside for the Professional and Health Care Worker Education and Training Strategy, with the goal of increasing provider understanding of the PHC system redesign and PHC related clinical skills.[306] The Applied Technology Strategy received $1,000,000, in the hope of increasing the use of modern technology, while the Shared Care Strategy received $100,000 of PHCTF funds.[307] The purpose of that strategy was to increase access to specialist advice and care, and improve the efficiency of specialist services. The Public Education Strategy was given $400,000 to encourage self management of health.[308]

Implementation initiatives involved the development of health centres in smaller communities to support system redesign and curtail the fragmentation of health care services. That initiative received $1.2 million, with $200,000 going to each community eligible to receive the funds.[309]

The implementation infrastructure proposed by Northern Health included a steering committee to support the development of the strategies, partnerships in the communities, and monitoring of progress.[310] A working committee, made up of senior managers, was established to manage the coordination of the strategies including financing and operations while stressing the importance of collaboration.[311] It was the working committee that decided which communities would receive funds for a health centre. The criteria for a community to be selected was as follows: physician support, community interest, adequate resources, appropriate capital, basic technology,

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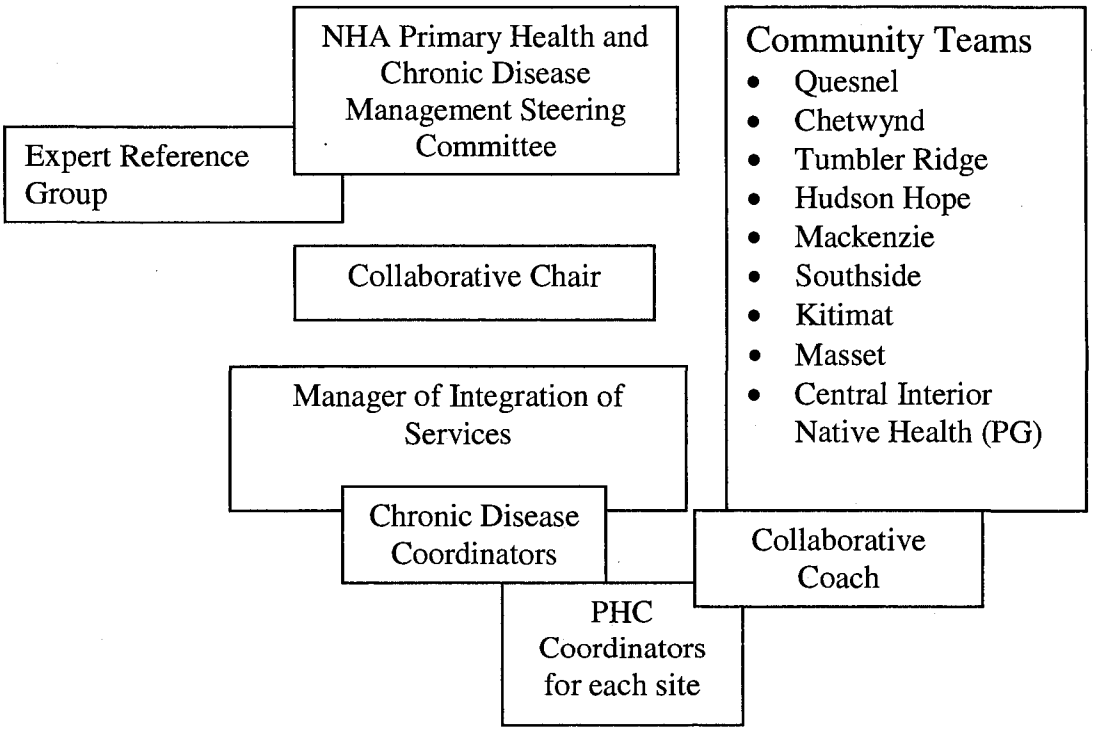
[306] Northern Health Authority, *PHC Plan 2003-2006*, 11.
[307] Northern Health Authority, *PHC Plan 2003-2006*, 12, 14.
[308] Northern Health Authority, *PHC Plan 2003-2006*, 15.
[309] Northern Health Authority, *PHC Plan 2003-2006*, 18. A $250,000 Specialized Health Care Centre in Prince George was proposed in order to serve people who otherwise are left out of the health care system like the disadvantaged who have multiple health concerns in an urban area.
[310] Northern Health Authority, *PHC Plan 2003-2006*, 20 – 21.
[311] Northern Health Authority, *PHC Plan 2003-2006*, 21.

opportunity to provide services to surrounding areas, and the ability to partner with other funders.[312]

Based on the initiatives outlined in the final proposal to Ministry of Health Planning, the authority appointed a Manager of Health Services Integration, three Chronic Disease Prevention and Management Coordinators and four community teams (which eventually grew to eight) to participate in the initiative.[313] The manager's role was to provide a direct link between local PHC coordinators in the region.[314] Community Collaboratives were composed of local PHC providers from a variety of disciplines responsible for the redesign of local health services ". . . based on evidence-based chronic disease prevention and management guidelines."[315]

Figure Two[316]
Community Collaborative Infrastructure



[312] Northern Health Authority, *PHC Plan 2003-2006*, 22.
[313] Northern Health Authority, *The Community Collaborative Project Design*, 3.
[314] Northern Health Authority, *Pre Work Package*, 33.
[315] Northern Health Authority, *Pre Work Package*, 33.
[316] Northern Health Authority, *The Community Collaborative Project Design*, 24.

As for regulation and liability, the provincial government worked with Northern Health to educate potential Community Collaborative members so that the transition was smooth and within the boundaries of the provincial service plans and the *Canada Health Act* (CHA). In the lead-up to a five day PHC workshop hosted by the authority in September 2003, each Community Collaborative was sent a pre-work package and the Community Collaborative Project Design that included the mission, strategies, assumptions, community needs/assets, and desired results.[317] The main focus of the Community Collaborative was to improve prevention and management of chronic disease within PHC setting.[318] The objectives of the Community Collaborative were to improve the health outcomes for patients, improve patient access, improve flow of service integration, incorporate prevention and clinical management, increase practitioner access to specialist consultation and support, develop and evaluate a sustainable model for professional training and to support a PHC system that reflects the needs of patients in Quesnel.[319] Included in the pre-work package was the definition of a collaborative approach:

> Time-limited effort (6 – 18 months) of multiple organizations, which come together with faculty to learn about and to create improved processes in a specific topic area. The expectation is that the teams share expertise and data with each other, thus, everyone learns, everyone teaches.[320]

At the workshop, Northern Health provided teams from the four communities in north-central BC, including Quesnel, with details of the PHCTF. Following the workshop, each community appointed a primary health care coordinator (PHC-Coordinator) and created a local action plan to improve the local PHC system including a

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[317] Northern Health Authority, *The Community Collaborative Project Design*, 3.
[318] Northern Health Authority, *The Community Collaborative Project Design*, 8.
[319] Northern Health Authority, *The Community Collaborative Project Design*, 18.
[320] Northern Health Authority, *Pre Work Package*, 35.

chronic disease collaborative in Quesnel.[321] The team in Quesnel hired a PHC-Coordinator. The PHC-Coordinator's role was to oversee the coordination of the Community Collaborative.[322] The job entailed arranging meetings, ensuring the completion of tests, collecting data for evaluation, managing teams and reporting to the manager of Health Services Integration.

Early on it became clear that it would be difficult to complete all of the initiatives first proposed for Quesnel. Professional development, shared care, technology and public education initiatives were incorporated into the goals of the Community Collaborative. It made sense to Northern Health to do this because the Community Collaboratives were already on their way in the four communities (later expanded to eight communities).[323] There was concern that goals described in the pre-work package were too much to do all at once in the communities.[324] Consequently, instead of attempting to change the delivery of health care services on a broad level, the PHC-Coordinator for Quesnel started going to various health care providers to garner interest in the Community Collaborative.[325] One of the visits was to a local medical Clinic. The PHC-Coordinator brought a basket of muffins to the lunchroom, sat down at the table and waited for people to drop in for a break.[326] As people made their way through the room, the coordinator introduced them to the Expanded Chronic Care Model (ECCM). The model is a series of tools including an on-line flow chart that tracks the progress of a patient with a chronic

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[321] Northern Health Authority, *The Community Collaborative Project Design*, 3.
[322] Northern Health Authority, *Pre Work Package*, 35.
[323] Northern Health, *Northern Health Review of PHCTF Funded Initiatives, 2003 – 2006*. Quesnel: Northern Health. December 2006, 3.
[324] Northern Health, *Northern Health Review of PHCTF*, 12.
[325] Northern Health. Interview with Primary Health Care Coordinator, 2.
[326] Ministry of Health, [Name Removed]'s: [Name Removed] *at Work in the North*. Victoria: Province of British Columbia. Available from: <http://www.health.gov.ca.ca/cdm/success/success_nha.pdf > (15 February 2007): 1.

disease, in essence an electronic health record. ECCM, as a constructive roadmap, gives PHC providers direction in the care of patients with chronic diseases.[327] Specifically, the online flow chart or Chronic Disease Management Toolkit (CDM Toolkit) is an online patient registry that collects data in a manner that allows physicians to chart the management of a chronic disease like diabetes.[328] The online system requires a computer with an internet connection, a printer, the appropriate software, a screen that is capable of 800x600 resolution and a password and username provided by Healthnet Access Services.[329]

One physician showed interest in the CDM Toolkit and soon the Community Collaborative started using the ECCM (including the CDM Toolkit) to manage diabetes with the assistance of a medical office assistant at a local medical clinic.[330] The assistant was paid with the proceeds of the payments the physician received from the Family Practice Incentive Program. She was responsible for CDM Toolkit data entry on-line through the Ministry of Health, foot exams, blood pressure checks, and assisting patients with self-management goals.[331] The assistant planned visits for patients with the physician every three months, booking eight people for fifteen minutes with her and five minutes with the physician each, in a spare room in the office.[332] Before each visit, the

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[327] Ministry of Health. [Name Removed]'s Muffins, 1.

[328] Patricia Fortin "An Investigation of Clinician Acceptance of a Guideline Based Patient Registry System for Chronic Disease Management," Thesis. Victoria: University of Victoria, 2005, 82. System can also track congestive heart failure, kidney disease, asthma, hypertension and depression

[329] Fortin, 82. The software had to be at leadt Windows 98 or later.

[330] Northern Health. *An Update to Our Communities: Regional Update and Annual Report for 2003 - 2004*. Prince George: Northern Health. Available from: < http://www.northernhealth.ca/About/documents/Quesnel-Final.pdf>:, 2.

[331] British Columbia Medical Association. *BC Diabetes Collaborative: Closing Congress Highlights, February 17 – 18, 2005*. Vancouver: British Columbia Medical Association. Available from: < http://www.heartbc.ca/pro/collaboratives/dm/docs/ClosingCongressProceedings17-18Feb2005.pdf>: 7.

[332] Ministry of Health, *Quality Care in Quesnel*. Victoria: Ministry of Health. Available from: < http://www.health.gov.bc.ca/cdm/success/success_quesnel.pdf>: 1 – 2.

medical office assistant would highlight on the flow sheet what the physician should discuss with the patient on that visit.[333]

After the toolkit had been incorporated for eighteen months, the PHC-Coordinator asked the physician if he was willing to visit the other clinics in town to speak to them about the success he had with the ECCM in the hope of encouraging other local physicians to join the Community Collaborative.[334] The physician agreed to visit the other health clinics in the community and the result was other physicians adopting the online tool.[335] Given the small number of physicians in Quesnel and the visibility of aggregate data online, friendly competition between the doctors grew as it became clear whose patients were achieving the best results.[336]

Eventually, partnerships developed between physicians and local optometrists, Quesnel Health Unit, physiotherapists, a local fitness gym and the Diabetes Education Centre.[337] The two local optometrists worked with the Community Collaborative to create a information sharing process regarding dilated eye exams for diabetic patients. Eventually, one of the optometrists began taking highly specialized photographs of patient's eyes instead of dilated eye exams.[338] The use by physicians of the results from the high definition photographs taken by the optometrist only came after negotiation between the parties within the Community Collaborative.

The Community Collaborative, with the assistance of the PHC-Coordinator, worked with the Quesnel Health Unit to increase the number of chronic disease patients

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[333] *BC Diabetes Collaborative: Closing Congress Highlights*, 7.
[334] Northern Health. *Interview with Primary Health Care Coordinator*, 8.
[335] Northern Health. *Interview with Primary Health Care Coordinator*, 3.
[336] Ministry of Health. *Quality Care in Quesnel*, 3.
[337] Northern Health. *Interview with Primary Health Care Coordinator*, 13.
[338] *Northern Health Community Collaborative Monthly Practice Reports*. June 2003 - January 2004. Quesnel: Northern Health, 4.

who received influenza immunizations.[339] Typically, the Quesnel Health Unit is the only health provider allowed to store and administer the immunizations.[340] In order for other nurses and health providers to administer the immunizations, the Community Collaborative had to work with Quesnel Health Unit to work around existing regulation.

The need for regular foot exams of diabetic patients was also addressed by the Community Collaborative. At first the Quesnel Health Unit nurses, Diabetic Education Centre employees, medical office assistants and physicians were trained by provincially funded experts to perform foot exams.[341] A local physiotherapist was contacted by the PHC-Coordinator about the initiative. The physiotherapist was eager to join the Community Collaborative; he had tried to collaborate with local physicians before the Community Collaborative without any success.[342] The issue of fees charged to the patient was resolved within the collaborative. The physiotherapist worked with the Community Collaborative to create a pamphlet outlining the fees charged to patients. Patients were charged $30.00 for the foot exam while $35.00 was charged to the Medical Services Plan.[343] Eventually, other members of the community and health care sector were trained to perform the exam including First Nation care providers, home care workers and local aestheticians.[344]

Further collaborations were formed with the City of Quesnel, a local fitness centre for women and the Quesnel and District Arts and Recreation Centre.[345] Collaboration with the city resulted in improved walking paths around the community. It also created

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[339] *Monthly Practice Reports*, June 2003 – January 2004, 2.
[340] *Monthly Practice Report*, June 2003 – January 2004, 2.
[341] *Northern Health Community Collaborative Monthly Practice Reports*. May 2004 – January 2005. Quesnel: Northern Health, 6.
[342] *Monthly Practice Reports*, May 2004 – January 2005, 6.
[343] *Monthly Practice Reports* June 03 - January 2004, 4.
[344] *Monthly Practice Reports*, May 2004 – January 2005, 6.
[345] Northern Health. *Interview with Primary Health Care Coordinator*, 19.

an opportunity for the PHC-Coordinator and an employee from the City of Quesnel to attend national conferences concerning active living.[346] The active living initiative developed into a pedometer challenge starting with health care providers and eventually including community organizations and stakeholders (i.e. local businesses, schools and the recreation centre).[347]

In the case of the local fitness centre for women, it was the personal relationship between a local female physician and the manager of a local fitness centre that led to the inclusion of the fitness centre in the Community Collaborative.[348] A casual conversation between the two women led to a discussion between the Community Collaborative members and the manager of the fitness centre concerning free passes for women on social assistance, who have a chronic disease and who are referred to the program by their physicians. [349] To help support the program, the manager printed and distributed posters to all of the medical clinics in town promoting the initiative.

Conclusion

The development of vertical collaboration between the provinces and the federal government in the last ten years allowed for several program initiatives at the local level. The PHCTF created opportunities for communities like Quesnel to develop a Community Collaborative that addressed the primary health care needs of the community. Horizontal collaboration grew as various health care providers came together within the collaborative.

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[346] Northern Health. *Interview with Primary Health Care Coordinator*, 21.
[347] *Monthly Practice Reports*, May 2004 – January 2005, 16.
[348] *Monthly Practice Reports*, June 2003 – January 2004, 12.
[349] *Monthly Practice Reports*, June 2003 – January 2004, 12.

The next task in this research is to describe how the vertical and horizontal collaboration described in this chapter was facilitated or restricted by factors such as financing/funding, regulation/liability, electronic health records and health human resources. More importantly, other factors that are unique to northern rural communities are introduced.

Chapter Four: Analysis

Introduction

Financing/funding, regulation/liability, electronic health records (EHR) and health human resources (HHR) can act as both barriers and facilitators to vertical and horizontal collaboration in the delivery of PHC services. This general conclusion is confirmed when one examines the community of Quesnel and specifically the Community Collaborative that encouraged initiatives including the increased numbers of influenza immunizations and eye examinations of diabetic patients, foot assessments and care for diabetic patients and the involvement of the community in the prevention of chronic diseases. It is also clear, upon examination of PHC services in the community, that there are categories beyond the four defined in the literature. Barriers and facilitators such as the dependency on physicians, the role of patients and community in the collaboration, and the geographic location of a small community like Quesnel in northern British Columbia should be taken into account.

Financing/Funding

Financing refers to how revenue is generated for a particular program or service whereas funding relates to the manner in which the funds are used to pay for certain goods or services.[350] The capacity of financing to be either a barrier or a facilitator is directly related to the provisions outlined in the Canadian Constitution and the *Canada Health Act* (CHA). Likewise, the funding of new PHC goods and services can be either a

[350] Deber and Baumann, 4.

barrier or facilitator depending on how the funding is implemented and how much is allocated.[351]

The collection of tax revenue for the Primary Health Care Transition Fund (PHCTF) and subsequent federally funded programs has encouraged the provincial and federal governments to work together to improve primary health care (PHC) services in British Columbia. Therefore, as a form of vertical collaboration, the First Ministers meetings and other intergovernmental meetings between governmental officials should not be underestimated. For the provincial and federal governments to come together and agree on a strategic plan regarding PHC in 2000, 2003 and 2004, is an example of how financing/funding of PHC services acted as a facilitator to vertical collaboration. The new federal funds encouraged vertical collaboration between the two levels of government, thus facilitating the development of programs such as the Community Collaborative in Quesnel. For example, it was only with the assistance of the PHCTF that a Manager of Integration Services and a PHC-Coordinator were hired in Quesnel. They were instrumental, via extensive facilitation, in the promotion, creation and maintenance of the Community Collaborative. Subsequent funding agreements between the two levels of government ensured the continuation of the positions until present day.

Likewise, it was with those funds that vertical collaboration concerning the Community Collaborative and the use of the Chronic Disease Management (CDM) Toolkit came about, thus avoiding the fee-for-service versus capitation issue. Northern Health and Ministry of Health worked together to create the collaborative and the toolkit with federal PHCTF funds. This meant that instead of encouraging physicians to become salaried employees (a task that would involve extensive negotiation with all levels of

[351] Deber and Baumann, 5.

government and reluctant physicians), Northern Health and the Ministry of Health adapted a program that encouraged collaboration within the established fee-for-service system. Physicians were encouraged to create a roster of diabetic patients using the toolkit without changing the manner in which they were paid by Northern Health. In other words, the vertical collaboration between the provincial and federal government, and between Northern Health and the Ministry of Health ensured that the Community Collaborative was not delayed by the probable unsuccessful alteration of payment mechanisms to physicians.

Nevertheless, the financial pressures resulting from the initial implementation of the CDM Toolkit created a barrier to horizontal collaboration that was only resolved by vertical negotiation between PHC-Quesnel, Northern Health and the Ministry of Health. When physicians first began participating in the Community Collaborative, there was some reluctance to move forward given the financial constraints. Most physicians were reluctant to participate in the development and maintenance of the CDM toolkit given the extra time needed by medical office assistants to complete flow sheets for all diabetic patients, usually resulting in overtime paid to the assistant and valuable time lost by physicians going to learning sessions.[352] It was only after the financial incentives were offered, resulting from vertical collaboration between PHC-Quesnel, Northern Health and the Ministry of Health, that more physicians began to develop a roster of patients with completed and updated flow sheets, thus participating in the Collaborative. By the end of 2004 and the beginning of 2005, attendance by physicians at the learning sessions improved once they realized that there were financial incentives for participation.[353]

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[352] *Monthly Practice Reports*, June 03 Jan 04, 20.
[353] *Monthly Practice Reports*, May 04 – Jan 05, 23.

Another example was the eventual funding of computers and updates for existing computers for the CDM toolkit that encouraged horizontal collaboration. At a local medical clinic, the medical office assistant needed updates on the clinic computer so that the toolkit could be installed and used.[354] She also faced the challenge of sharing the computer with other office workers, which limited her access to the toolkit.[355] Again, vertical collaboration between the Ministry of Health, Health Integration Manager, PHC-Coordinator and the Health Administrator for Quesnel (resulting in funding for new computers for all clinics participating in the collaborative) allowed for increased horizontal collaboration at the local level.

Nevertheless, no amount of vertical collaboration can overcome the financial crisis facing federal and provincial governments in the continued delivery of health care services in Canada. What the two levels of government are incapable of resolving through vertical collaboration is left for local health providers to resolve through horizontal collaboration. Hence, what started out as a barrier due to unsuccessful vertical collaboration between the federal and provincial governments became a facilitator for horizontal collaboration in the community of Quesnel.

In the case of eye examinations for diabetic patients, it was the collaboration between the physicians and optometrists within the Community Collaborative concerning the billing of eye examinations that encouraged horizontal collaboration. The goal of the collaborative was to increase access to dilated eye examinations for diabetic patients. It was the physician who was first to show interest in the CDM Toolkit and then who spoke to a local optometrist about using the Medical Services Plan (MSP) billing for

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[354] *Monthly Practice Reports*, June 03 – Jan 04, 21.
[355] *Monthly Practice Reports,* June 03 – Jan 04, 21.

diabetics.[356] Eventually the other optometrist in town was contacted and both were invited to a Community Collaborative meeting to discuss and organize the billing structure. The result of the collaboration was a fee structure that charged the patient $30.00 - $35.00 for the exam, with the optometrists billing MSP for the other $35.00.[357] Both optometrists in town agreed to the billing structure.[358] Interestingly, it was the initial barrier (the lack of funding for the service due to unsuccessful vertical collaboration) that eventually facilitated horizontal collaboration. Information resulting from the tests could not be shared until the question of billing was resolved, necessitating collaboration between the providers.

The fee structure acted as a facilitator to horizontal collaboration that resulted in improved access and affordable prices for the patient. However, at first a miscommunication of the fee structure was a barrier to patients. It was not made clear to the patients that there was some fee involved with the exam.[359] Follow-up was required with the Chronic Disease Management Clinic, the source of the miscommunication to patients. In addition, what began as discussions concerning billing lead to discussions relating to the validity of highly specialized camera pictures of the eye instead of dilated eye examinations.[360] Again, this example demonstrates how a barrier can act as a catalyst for collaboration if all parties involved are committed to resolving the barrier.

Discussions about fee structures also led to horizontal collaboration between physicians and physiotherapists. One of the initiatives of PHC-Quesnel was improved access to foot structure and gait assessments. The result of the collaboration was a

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[356] *Monthly Practice Reports*, June 03 - Jan 04, 4.
[357] *Monthly Practice Reports*, June 03 - Jan 04, 4.
[358] *Monthly Practice Reports*, June 03 - Jan 04, 5.
[359] *Monthly Practice Reports*, June 03 – Jan 04, 4.
[360] *Monthly Practice Reports*, June 03 – Jan 04, 4.

pamphlet given to all of the medical clinics in town by the physiotherapist participating in the Collaborative.[361]

The funding of lunches during the learning sessions and monthly meetings were also facilitators to horizontal collaboration. When lunch was offered to collaborative members, the attendance at learning sessions and monthly meetings increased.[362] It was a small but important way to compensate collaborative members for their time, hence a facilitator to horizontal collaboration.

Regulation/Liability

Regulation as a category encompasses the self-regulation of professionals with special knowledge. It also reflects the legal definitions in the Canadian Constitution and the *Canada Health Act* (CHA) that can act as barriers or facilitators to vertical and horizontal collaboration.[363] Related to regulation is the enforcement of standards of practice and the possible liabilities that participation in a collaborative entails.[364] If the professional does not adhere to certain regulations, they may be liable for their actions.[365]

There are a number of examples of how national and provincial workshops and conferences on improving horizontal and vertical collaboration led to facilitators to vertical and horizontal collaboration in regards to regulation/liability. The federal government, with the assistance of provincial governments, held several national and provincial PHCTF-funded conferences that inadvertently addressed, among other things, regulations that may impede collaboration. For example, at a national diabetes

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[361] *Monthly Practice Reports*, June 03 – Jan 04, 7.

[362] *Northern Health Community Collaborative Monthly Practice Reports.* July 2005. Quesnel: Northern Health, 6.

[363] Deber and Baumann, 16.

[364] Deber and Baumann, 14.

[365] Deber and Baumann, 30.

conference, a local physician learned that technologically advanced pictures of the eye could replace the need to perform dilated eye examinations.[366] The provincial government also sponsored an EHR workshop for health care providers that was attended by representatives of all of the clinics in Quesnel.

In another instance, the PHC-Coordinator and a local City of Quesnel employee attended a federally funded conference that included active living initiatives. Discussions eventually led to the potential regulatory/liability barriers the province and communities face when implementing active living initiative for community members.[367] This resulted in opportunities for Northern Health to participate in active living initiatives such as the deployment of a website dedicated to encouraging walking and the use of pedometers.[368]

There are examples of how regulation/liability acted as barriers to vertical collaboration as well. The PHC-Coordinator was frustrated with the lack of response from the provincial laboratory (that oversees the administration of immunizations) concerning the shortage of influenza immunizations for diabetic patients participating in the Community Collaborative.[369] Collaboration with the laboratory proved difficult for the PHC-Coordinator resulting in constant follow up with phone calls and emails. The coordinator had to ask provincial lab representatives three times to ensure that the issue of shortages was placed on the agenda of the committee meetings that dealt with influenza immunization distribution in British Columbia.[370]

The regulation/liability factor came to the forefront of horizontal collaboration when PHC-Quesnel attempted to increase access to influenza immunizations for diabetic

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[366] *Monthly Practice Reports*, June 2003 – January 2004, 4.
[367] *Monthly Practice Reports*, June 2003 – January 2004, 8.
[368] *Monthly Practice Reports*, June 2003 – January 2004, 24.
[369] *Monthly Practice Reports*, May 2004 – January 2005, 2.
[370] *Monthly Practice Reports*, June 2003 – January 2004, 4.

patients. Administration of the immunizations was restricted to the local public health unit. As distributors, the Quesnel Health Unit had to ensure that the immunizations were stored and administered in an appropriate manner.[371] The necessity of the Quesnel Health Unit to oversee the administration of the immunizations resulted in the compulsory collaboration between the Quesnel Health Unit, the Chronic Disease Management Clinic, physicians and the PHC-Coordinator. The PHC-Coordinator facilitated the process that included training of clinic staff to ensure that all immunizations were safely stored and given to patients.[372] However, the requirement that the Quesnel Health Unit oversee the initiative resulted in horizontal collaboration. Thus, what at first may have been considered a barrier created through vertical collaboration (the BC government requirement that the Quesnel Health Unit had to oversee the administration of the flu immunizations) was also an opportunity for all parties to work together to develop a system that allowed immunizations to be given to patients at medical clinics without compromising the Quesnel Health Unit regulatory responsibilities.

An opportunity for horizontal collaboration between the Community Collaborative and the Quesnel Health Unit also developed with the pedometer initiative. PHC-Quesnel and Community Collaborative promoted pedometers throughout the community in an effort to encourage more active living by community members including school age children. Any health program directed towards schools is the responsibility of the Quesnel Health Unit. This form of regulation necessitated collaboration between the Quesnel Health Unit and the Community Collaborative. PHC-

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[371] *Monthly Practice Report,* June 03 – Jan 04, 2.
[372] *Monthly Practice Report,* May 04 - June 05, 3.

Quesnel was not allowed to enter the schools but the PHC-Coordinator was able to provide the public nurses with pedometers to give to the students, the links to websites for participants to visit, and the names of pedometer retailers.[373]

The necessity for specialist referrals due to regulation/liability with respect to eye examinations of diabetic patients was another obstacle to horizontal collaboration. The requirement to refer all diabetic patients to an ophthalmologist for all dilated eye examinations was discussed at a medical advisory committee meeting.[374] Members of the committee were concerned that patients were forced to leave the community to have the examination performed by an ophthalmologist, causing delays in treatment. A local physician (a member of the Community Collaborative) informed the committee that at a national diabetes conference, he learned that in the case of dilated eye examinations, local optometrists were qualified to perform the examinations.[375] Members of the committee expressed concern about the possible liability stemming from accepting examination results from optometrists. It was only after the local physician assured the committee that the two optometrists in town were qualified to perform the examinations that the new form of practice went forward.

The issue of specialist referral for eye examinations is an example of how physicians and others involved in a collaborative must take into account any regulations and resulting liabilities. Even though the referral to optometrists was efficient and cost effective (the patient only had to wait a week as compared to the usual three months), assurances had to be made that the local optometrists were qualified enough to perform the examinations. This was particularly the case with the camera-imaging examination of

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[373] *Monthly Practice Report,* June 03 – Jan 2004, 16.
[374] *Monthly Practice Reports,* May 2004 – January 2005, 4.
[375] *Monthly Practice Reports,* May 2004 – June 2005, 4.

the eye offered by one of the optometrists. That debate was resolved after the physician who first participated in the CDM toolkit, attended a national diabetes conference in which the value of the camera-based examination was highlighted.[376]

The involvement of specialists and the resulting regulation/liability was later negotiated and thus became a facilitator to horizontal collaboration in 2005. Specialists and general practitioners worked together to develop guidelines concerning communication and sharing of patient information.[377] Again there was a heavy reliance on medical office assistants to first apply for certificates and then enter patient data information.[378]

The issue of liability also came up in the planning of the Hearts@work fair for employees at a local sawmill. The PHC-Coordinator was required to work with union representatives to clarify the legal responsibilities pertaining to the questioning of union employees about the consumption of alcohol and the possible negative health affects it can have on the body.[379] The union, concerned about the collection and use of this information by Northern Health and the employer, restricted PHC-Quesnel to information dissemination only, they were not allowed to screen the employees.[380] In this case, it was not only Northern Health policy that prevented horizontal collaboration but also the policy of the union representing the local sawmill employees.

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[376] *Monthly Practice Reports,* May 2004 – June 2005, 4.

[377] *Northern Health Community Collaborative Monthly Practice Reports.* November 2005. Quesnel: Northern Health, 3.

[378] *Monthly Practice Reports,* November 2005, 3.

[379] *Northern Health Community Collaborative Monthly Practice Reports.* June 2006. Quesnel: Northern Health, 9.

[380] *Monthly Practice Reports*, June 2006, 9.

Electronic Health Records

An electronic health record (EHR) is a secure electronic record of patients' past and present health status and care that can be accessed by any health provider caring for the patient. If user-friendly, the online record can facilitate collaboration in the delivery of PHC services.[381] It can act as a barrier if the system is difficult to use or if the health professional participating in the collaboration is unwilling or unable to enter patient's data into the EHR system.[382] In the case of Quesnel, EHR were expanded to include all online collaboration tools used by members of the Community Collaborative including the CDM toolkit. The focus of the PHC-Coordinator was the implementation of the CDM toolkit, an online tool adapted by the Ministry of Health and Northern Health. Therefore, for the purpose of this section, the category of EHRs is expanded to include any online tool utilized by the Community Collaborative members.

It was at the First Ministers conference in September 2000 and subsequent meetings that the two orders of government met to address some of the barriers facing health professionals with respect to EHRs. As part of the five common principles of the PHCTF, both the provincial and federal governments decided that the creation and maintenance of EHRs was a necessity if PHC service delivery was to improve. The result was funding dedicated to the initiative, an important element for the success of the initiative.

Online collaboration also was supported via the CDM Toolkit at the provincial and regional levels in British Columbia. It was only with the vertical collaboration between Northern Health and Ministry of Health that the project moved forward.

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[381] Deber and Baumann, 23.
[382] Deber and Baumann, 25.

Eventually, once the Manager of Integration of Services and the PHC-Coordinator were hired, vertical collaboration was extended to the local level.

Unfortunately, the support for EHRs and other online collaboration by the three levels of government did not prevent barriers from occurring once the initiatives were implemented. In the case of the CDM Toolkit, communication between the Ministry of Health, Northern Health and PHC-Quesnel was difficult at times and this resulted in implementation delays. In particular, the Diabetes Education Centre, a member of the Community Collaborative, was not able to access the toolkit for seven months after the centre received new computers, even though several attempts were made to contact the Ministry of Health to gain access.[383] Physicians within the collaborative faced the same barrier, as the Ministry of Health was slow to respond to requests and inquiries. Consequently, in the case of vertical collaboration concerning EHRs, the initial collaboration between the three orders of government concerning the creation and maintenance of the initiative acted as a facilitator but when it came to the day-to-day use of online tools, vertical collaboration was slow to occur with significant delays at the local level given the lack of access to the provincial electronic database by local health care providers.

As for EHRs acting as factors in horizontal collaboration, there were aspects of it that were perceived as barriers in regards to data transfer compatibility with the CDM Toolkit. Users of the toolkit could not transfer information between the databases and were thus required to enter information twice.[384] Hence, the physicians participating in the collaborative were concerned about the time and cost involved in maintaining not

[383] *Monthly Practice Reports*, May 2004 – January 2005, 20.
[384] Fortin, 33.

only the toolkit but the EHR as well.[385] Nevertheless, one physician in particular was highly motivated to use the EHR and therefore took it upon himself to register and start using the system within his own practice.[386] The PHC-Coordinator encouraged his use of the system by offering further training at an EHR conference in Vancouver.[387] Interestingly, even though this one physician had encouraged other general practitioners to incorporate the EHR into their practices, it was not until the PHC-Coordinator became involved in the installation of the database that it went forward. For example, the physicians only showed interest after they were invited by the PHC-Coordinator to a conference in Vancouver about EHRs sponsored by the Ministry of Health.

It was the development and maintenance of the CDM Toolkit that was the focus of the PHC-Coordinator and the Community Collaborative in the hope of improving PHC access for diabetic patients. For the most part, users did not have difficulty with the CDM Toolkit if they had previous experience with computers.[388] The barrier associated with the toolkit was the initial registration of physicians. The time between the initial introduction to and training for the system and the processing of a physician's application for a certificate was extensive.[389] Even when the physicians received their certificate, computers were not sufficiently updated to support the programs, another example of basic computer access acting as a barrier.[390] Some computers only operated on Windows 98, slowing the download and maintenance of the toolkit considerably.[391] The result was delays in access for most of the doctors. In addition, when the updates to the computer

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[385] *Monthly Practice Reports*, May 2004 – January 2005, 34?
[386] *Monthly Practice Reports*, May 2004 – January 2005, 31.
[387] *Monthly Practice Reports*, May 2004 – January 2005, 31.
[388] Fortin, 34.
[389] Fortin, 52.
[390] *Monthly Practice Reports*, May 2004 – January 2005, 20.
[391] *Northern Health Community Collaborative Monthly Practice Reports.* September 30, 2004. Quesnel: Northern Health, 4.

were finally completed, the physicians had by then forgotten their passwords and had to reapply for a password, causing more delays.[392] Eventually, physicians began to distrust the system, an issue that was closely monitored by the PHC-Coordinator.[393] The delay and subsequent lack of faith in the toolkit was a significant barrier to horizontal collaboration.

In some cases, basic computer skills and access were barriers to horizontal collaboration. For example, the promotion and use of pedometers by Northern Health employees in Quesnel were difficult at the beginning of the initiative. Most information pertaining to the challenge was distributed by email to department heads. In most cases, the department heads did not read the email or forward it to employees in the department.[394] Consequently, the PHC-Coordinator and the clerical assistant at PHC-Quesnel relied on phone calls to update participants when it was clear that emails were not being forwarded.[395] In this case, basic communication with the use of computers broke down, leading to slower enrolment in the pedometer challenge, and thus forcing the PHC-Coordinator to extend the application deadline several times to allow participants time to apply.

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[392] *Monthly Practice Reports*, May 2004 – January 2005, 20.
[393] *Monthly Practice Reports*, May 2004 – January 2005, 20.
[394] *Monthly Practice Reports*, May 2004 – January 2005, 16.
[395] *Monthly Practice Reports*, May 2004 – January 2005, 16.

Health Human Resources

Health human resources (HHR) are the health professionals that work in the primary health care field.[396] The number and variety of health professionals depend upon various factors including population base, geography and available funding.[397] The availability of HHR can be a barrier or facilitator depending on the geographic location of the community.[398]

The clearest example of HHR acting as a facilitator to vertical collaboration was the negotiations between the provincial and federal governments to create the PHCTF. The fund allowed Northern Health to hire a primary health care coordinator in the community of Quesnel. The importance of the PHC-Coordinator cannot be overestimated. In several instances, the PHC-Coordinator played a vital role as a facilitator of horizontal collaboration. It was the PHC-Coordinator who visited every clinic, encouraging physicians to participate in the Community Collaborative. This person also coordinated learning sessions for Community Collaborative members and negotiated on behalf of physicians with the Ministry of Health in regards to certificate approval for the toolkit. The PHC-Coordinator also encouraged the involvement of the City of Quesnel by inviting local stakeholders to the PHC Steering Committee.

It was also through the vertical collaboration between the two levels of government that the Manager of Integration Services position was created. The manager enhanced vertical collaboration by working with Northern Health and the Ministry of Health. This collaboration resulted in the creation of financial incentives to encourage

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[396] Deber and Baumann, 31.
[397] "Results Based Logic Model," 1.
[398] Deber and Baumann, 32.

the use of the toolkit by the physicians and by locating funds for computer updates and new machines.

Quesnel, like other small communities in Northern British Columbia, faces the high turnover and a shortage of HHR. Over the course of six years, three physicians who participated in the Community Collaborative have left one of Quesnel's medical clinics.[399] The one dietician in Quesnel retired just as the Community Collaborative was beginning.[400] The medical office assistant who worked with the first physician to take an active role in the Community Collaborative also left Quesnel in the spring of 2007. The high HHR turnover rate in Quesnel coupled with the shortage of physicians and specialists also posed a challenge to horizontal collaboration.

However, the lack of physicians at local medical clinics did create an opportunity for patient group sessions. The resulting unused office space allowed room for group sessions with diabetic patients that included foot exams, assessment for depression and self-management education.[401] Limited physician time allowed for increased involvement by medical office assistants. It was the assistants who performed the foot examinations and organized the patient group sessions. The shortage of physicians resulted in an opportunity for the duties and responsibilities of the medical office assistants to be expanded to fill the gap.

The shortage of physicians eventually led to other examples of horizontal collaboration such as the expansion of the Community Collaborative to include aestheticians who performed foot examinations and home care workers who followed up

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[399] *Monthly Practice Reports*, November 2005, 16.
[400] *Monthly Practice Reports*, May 2004 – June 2005, 19.
[401] *Monthly Practice Reports*, June 2003 – January 2004, 17. The regular examination of a diabetic's foot drastically reduces ciculation comlications that can lead to amputation.

on patients' progress with self-management goals. This expansion of roles through horizontal collaboration is common in northern communities that experience chronic HHR shortages. When vertical collaboration fails to provide the resources necessary to complete tasks, local health care providers look to each other to fill the voids. The result is horizontal collaboration that works to fulfill patients' needs via PHC delivery. As such, whether the providers realize it or not they are espousing Community Collaborative methods.

Other Barriers/Facilitators

There were other factors that acted as barriers/facilitators to vertical/horizontal collaboration in Quesnel including the dependence on physicians, the importance of patients, the roles community members play and the geographic location in northern British Columbia.

The importance of physicians is touched upon in the HHR category but it does not emphasize the dependence on physicians to make horizontal collaboration work in a community, especially when vertical collaboration fails to address the needs of the community by providing the necessary resources. An example of physician dependence is the data entry of patient information into the EHR system. Several of the physicians were either reluctant or too busy to enter the required information for the database.[402] Even when they did complete the initial data entry, they were unable to utilize the toolkit for an extended period of time due to scheduling constraints which resulted in the expiration of their passwords.

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[402] *Monthly Practice Reports*, May 2004 – January 2005, 21.

In the case of pedometer use by patients, physicians were not tracking the use even though this was necessary to demonstrate health outcomes.[403] In another instance, health providers from the community were invited to a wine and cheese event at a local fitness centre for women, creating an opportunity for providers to see what is offered to women at a local fitness club. Only five people registered for the event, none of whom were physicians.[404] Furthermore, the Community Collaborative devoted time at monthly meetings to develop a package to be given to all physicians in the community in an attempt to encourage them to join the collaboration.[405] The PHC-Coordinator still asked a local physician to help present the package to other physicians so that it had more credibility and thus acting as a facilitator by trying to recruit physicians, a potential barrier to horizontal collaboration.[406]

Conversely, the need to lend credibility to the process by involving physicians can act as a facilitator. When one physician from a group practice joined the collaborative, the other physicians in the group were more likely to join when they heard about the success of their colleague.[407] Hence, it is not enough to include physicians in a broad HHR category; it underscores the control a physician can wield. In small northern communities like Quesnel where there are few specialists, general practitioners act as gatekeepers to care for patients. It only takes a few physicians to refuse to participate in the collaborative for the initiative to fail in a small community like Quesnel, just as it only takes few for the collaborative to move forward. The shortage of physicians only exacerbates the situation; patients do not have the luxury of changing physicians if the

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[403] *Monthly Practice Reports*, May 2004 – January 2005, 29.
[404] *Monthly Practice Reports*, November 2005, 4 –5.
[405] *Monthly Practice Reports*, June 03 – January 2004, 18.
[406] *Monthly Practice Reports*, June 2003 – January 2004, 19.
[407] *Monthly Practice Reports*, May 2004 – January 2005, 41.

physician refuses to participate in the collaborative. The patient must accept the decision or face the challenge of finding a new general practitioner within the community. The important role physicians can play is acknowledged by Northern Health in the three year plan for PHC, post-PHCTF.[408] In the plan, physicians are described as co-partners with the authority.

Just as physicians are a key factor in horizontal collaboration, patients play a vital role that needs to be taken into account as either a barrier or facilitator, depending on the circumstances. For instance, it became apparent to members of the Community Collaborative that a high number of diabetic patients were experiencing some form of depression.[409] The mental health status of the diabetic patients was first identified in questionnaires given to patients at group sessions.[410] That information was obtained because patients were willing to complete the PHC-9 questionnaire. The Community Collaborative decided that with the assistance of Mental Health, group therapy would be offered to patients. All of the patients asked, however, refused to participate.[411] This exemplifies the important role the patients play in horizontal collaboration. The health providers participating in the collaborative can make plans and attempt to execute the initiative, but if the patients decide that they do not want to participate, the plan does not move forward. The importance of patients in a collaborative is also highlighted in the post-PHCTF plan. Northern Health describes a plan that seeks out active partnerships with patients.[412]

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[408] Northern Health. *Care North Proposal to Build Upon Gains in Primary Care*. Submitted to the Ministry of Health Services. September 21, 2007. Prince George: Northern Health, 15.

[409] *Monthly Practice Reports*, June 2006, 4.

[410] *Monthly Practice Reports*, June 2003 – January 2004, 19.

[411] *Monthly Practice Reports*, June 2006, 4.

[412] *Care North*, 15.

Interestingly, it was through vertical collaboration between the federal and provincial governments that the importance of patients within the collaborative was highlighted. For example, the Ministry of Health produced several documents, post PHCTF, that stressed the importance of patient-centered care. Deber and Baumann describe collaboration as a circle of providers with the patient in the middle. Each provider interacts with each other but the patient stays in the center away from the collaboration. The two orders of government also place patients in the middle of the collaborative, surrounded by providers, but in the Quesnel case the patient interacts on the same level as the health care providers and are thus part of the collaborative circle. In short, by not acknowledging patients as a potential barrier or facilitator, the role patients can play in a collaborative can be underestimated.

In the case of self-management of diabetes, the patients began as a barrier but eventually helped facilitate the process. At the first group session, each diabetic patient was given a self-management binder containing their current health status according to the toolkit and a section for documentation of personal goals.[413] At first, the patients were forgetting to bring their binders to the group sessions and individual appointments, thereby creating a barrier to horizontal collaboration.[414] Furthermore, when the patients did bring their binders, they still had not documented their personal goals in the binder.[415] This hampered the process until patients started getting into the habit of returning to group sessions and individual visits with their binders. The key or focus of PHC is on the patient; the patient is at the center of care. The importance of the patient's active involvement in PHC is particularly true for health promotion and prevention. Programs

[413] *Monthly Practice Reports*, May 2004 – January 2005, 26.
[414] *Monthly Practice Reports*, June 2003 – January 2004, 15.
[415] *Monthly Practice Reports*, June 2003 – January 2004, 15.

can be put into place but ultimately it is up to the patient to incorporate behaviour that prevents and treats chronic diseases like diabetes.

The role a community can play in the promotion or prevention of disease is also important and therefore should be treated as a potential barrier/facilitator. Horizontal collaboration should be viewed as an opportunity for collaboration not only within the health care system but with members of the community as well. The collaborative relationship that developed between the Community Collaborative and a local fitness centre is an example of how a community member can act as a facilitator. The opportunity for the local fitness centre manager to participate in the initiative to encourage a more active lifestyle in diabetic women resulted in the offer of free passes to any woman with a chronic disease, on social assistance, or who was referred to the program by a physician. Eventually the local fitness centre manager joined the Community Collaborative as an advocate for women's health.[416]

In the case of the encouragement of pedometer use in the community, the community played a vital role in the initiative as participants and as promoters. In order for the initiative to be a success, people throughout the community had to purchase the pedometers and track their steps via the PHC website. Businesses throughout the community acted as facilitators by selling the pedometers at cost and by promoting the product at various business locations. Usage of the pedometer increased significantly once local businesses began to promote the product and started challenges within the business premises.[417]

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[416] *Monthly Practice Reports*, June 2003 – January 2004, 13.
[417] *Monthly Practice Reports*, May 2004 – January 2005, 17.

Unfortunately, there was an instance where a community member acted as barrier to horizontal collaboration. As mentioned before, the Community Collaborative in Quesnel partnered with a local sawmill to organize a Hearts@Work Fair for union and non-union employees. The Collaborative researched the idea and discovered that the fair had been shut down in the past by the sawmill union because the employer could potentially use the fair to obtain private employee health information .[418] If the fair was to go ahead the mill union, an important community member, had to be consulted first. To avoid that obstacle, mill union representatives were included in the planning of the fair. This example demonstrates the importance of involving community members outside of the health care system.

It is not only the community as an active participant that should be taken into account as a factor in Community Collaboration but the geographic location and size of the community should also be considered as a barrier or facilitator. In a small northern community like Quesnel, there are several examples of how the size of the community acted as a facilitator to horizontal collaboration. The fact that the lead physician using the toolkit could visit all of the medial clinics (in this case five) in the community to promote the use of the online database illustrates the value of living in a small community. It would be a time-consuming task in a larger urban area for any physician who has little free time to visit other medical clinics. When it became clear that enrolment increased if there was face-to-face contact first, the collaborative took full advantage of the fact that Quesnel was a small community. In another instance, the PHC-Coordinator was able to meet informally with a physician from every clinic in town at a conference in Vancouver to discuss the possibility of the clinics becoming active in the

[418] *Monthly Practice Reports*, July 2005, 4.

collaborative.[419] The small number of physicians facilitated the type of personal contact between physicians that may not be possible in a larger urban area. The ability to share dilated eye examination results with physicians was made easier by the fact that there were only two optometrists involved. The small number of physicians at the clinics also acted as a facilitator. There were only four physicians at a clinic, three of whom committed to the collaborative, resulting in 75% of the practice joining the Community Collaborative.[420] In other words, only a small number of physicians were needed for horizontal collaboration to take place.

The involvement of a local fitness centre for women in the Collaborative is another example. Only in a small community would one of only a couple of female physicians know the local women's fitness centre manager (the only establishment like it in town) well enough to approach her concerning free passes for women with chronic diseases. Another example of utilizing social networks within a small community was the recruitment of one physician to the Community Collaborative by the PHC-Coordinator. On a fishing trip with the physician, the PHC-Coordinator invited the physician to not only join the collaborative but to also encourage other colleagues at the clinic to participate.[421] This was also true for the pedometer challenge. Community members were motivated to use the pedometer more when they went to the website and also saw people whom they knew using it.[422]

The geography and climate of the north also acted as barriers to horizontal collaboration, a factor that has to be taken into account when planning an initiative in a

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[419] *Monthly Practice Reports*, June 2003 – January 2004, 18.
[420] *Monthly Practice Reports*, May 04 – January 2005, 31.
[421] *Monthly Practice Reports*, May 2004 – January 2005, 39.
[422] *Monthly Practice Reports*, May 2004 – January 2005, 17.

northern community. On one evening when a training session for the toolkit was planned, of the twenty health care providers registered for the training, only ten attended due to the adverse weather conditions. Nevertheless, when the first group session for diabetic patients was held at a local medical clinic, despite the fact it was the first snowfall of the winter, all the patients managed to make the session.[423]

The isolation of a northern community can also act as a barrier. A video concerning Self-Management in Office Practice Training presented by the College of Physicians and Surgeons was only offered to medical clinics if personally presented by College personnel, something out of the question for a northern community like Quesnel due to the associated costs.[424] Another barrier was the perceived access by patients to PHC. One medical clinic refused to administer influenza immunizations at the clinic given the close proximity to the Quesnel Health Unit.[425] At another clinic in similar proximity to the Quesnel Health Unit, the number of patients given influenza immunizations increased when the shot was administered at the clinic even if the patient would have had to only walk down the street to the Quesnel Health Unit to receive it.

In the case of group discussions for diabetic patients who were identified as depressed through questionnaires, one possible reason why they may have refused to participate in group therapy was their potential exposure to other patients who were known to them.

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[423] *Monthly Practice Reports*, November 2005, 11.
[424] *Monthly Practice Reports*, November 2005, 5.
[425] *Monthly Practice Reports*, May 2004 – January 2005, 2.

Conclusion

In the case of Quesnel, the four categories put forward were facilitators or barriers to vertical and horizontal collaboration. Like other communities in Canada, the delivery of PHC services in Quesnel is influenced by factors such as finance/funding, regulation/liability, electronic health records, and health human resources. Furthermore, there were factors related to the geographic location and size of the community that should be placed into separate categories. Other factors such as the dependency upon physicians, the inclusion of patients in the collaborative and the important role a community can play should also be incorporated into any research about the delivery of PHC services in Canada.

Chapter Five: Conclusions

As the literature suggests, financing/funding, regulation/liability, health human resources and electronic health records can act as either barriers or facilitators to interdisciplinary collaboration (a form of horizontal collaboration). However, a factor that is overlooked in the literature is the necessity for adequate vertical and horizontal collaboration in small northern communities like Quesnel. Northern communities like Quesnel benefit from the involvement of various stakeholders inside and outside of the health care system. It is not enough for various health care providers such as physicians, nurses and specialists to come together to form an interdisciplinary collaborative. What is needed is a horizontal community collaborative that includes patients, community members, local government, and health care providers and that vertically collaborates with the provincial and federal governments.

The delineation between the vertical and horizontal collaboration is vital when examining northern communities like Quesnel. For example, the transfer of the Primary Health Care Transition Fund (PHCTF) was the single greatest example of how financing can be a facilitator to vertical collaboration. Regulation/liability was both a facilitator and barrier to vertical collaboration is several instances. An example of how regulation/liability acted as a barrier to vertical collaboration was the lack of response from the provincial laboratory (that oversees the administration of influenza immunizations) concerning the shortage of shots for diabetic patients in the Community Collaborative. Collaboration proved difficult for the primary health care coordinator (PHC-coordinator), resulting in constant follow-up with phone calls and emails.

Another PHCTF example relates to Health Human Resources acting as a facilitator to vertical collaboration. Negotiations between the provincial and federal governments to create the PHCTF allowed Northern Health to hire a PHC-Coordinator in the community of Quesnel. The importance of the PHC-Coordinator cannot by overestimated. In several instances, the coordinator played a vital role as a facilitator to horizontal community collaboration. It was the coordinator that organized learning sessions and encouraged the involvement of the City of Quesnel and other community members in the Community Collaborative.

There are aspects of electronic records acting as barriers to horizontal community collaboration, especially with regards to the Chronic Disease Management Toolkit or online database. The barrier associated with the toolkit was the initial registration of physicians. Even when the physicians were given access, computers were not sufficiently updated to support the programs, thus acting as a barrier to horizontal collaboration.

When collaboration is examined vertically and horizontally, it is clear that the literature also does not recognize the possibility of vertical barriers acting as facilitators to horizontal collaboration. For example, regulation/liability as a barrier to vertical collaboration acted as a facilitator to horizontal community collaboration. The Ministry of Health's requirement that the Quesnel Health Unit had to oversee the administration of the flu shot was an opportunity for the Community Collaborative to work together to develop a system that allowed the flu shots to be given to patients at medical clinics without compromising the Quesnel Health Unit's regulatory responsibilities.

Moreover, there are barriers and facilitators to both vertical and horizontal collaboration in small northern communities that do not belong within the categories defined by Deber and Baumann in their work on PHC and the PHCTF. They are: physicians, patients, community participation and place. In the case of physicians, communities in the provincial north are highly dependent on physicians given the low number of specialists and other health care providers in the community. The treatment of patients revolves around the availability of the general practitioners. If a physician is reluctant to participate in an initiative, there is little recourse for a patient. Finding a new physician is difficult given the low number of general practitioners in relation to the number of community members. For example, the data entry of information for diabetic patients into the online database depended on physician participation. Several physicians were either reluctant or too busy to enter the required information, and this acted as a barrier to both horizontal and vertical collaboration.

Patients, as members of a collaborative, represent another important category that was overlooked. While patients are clearly the focus of attention in a community collaborative, they also occupy a very important position on the periphery of a horizontal community collaborative with physicians and other health care providers. An example of this was the incorporation of self-management binders in the treatment of diabetes. The patients were clearly the centre of care but they were also active participants when they set self-management goals with the assistance of their general practitioner.

Horizontal collaboration should be viewed as an opportunity for collaboration not only with health care providers from different disciplines but members of the community as well. If included in the collaborative, they are no longer just the recipients of new

programs but vital collaborators in PHC program initiatives. In Quesnel, businesses, the recreation centre and community members were instrumental in the promotion of pedometer use in the community, a great example of how community participation can act as a facilitator to horizontal community collaboration.

The contextual impact of place also cannot be overestimated. The size and location of a community has a direct impact on the shape and development of any PHC initiative and is therefore worthy of a separate category. It makes sense that the framework for analysis would also reflect the contextual factors facing the community. An example of how the size of the community can act as a facilitator is the promotion of the Chronic Disease Management Toolkit. The fact that the lead physician using the toolkit who was a member of the Community Collaborative and could visit all of the medical clinics (in this case five) in the community illustrates the value of living in a small community.

Given the impact of the PHCTF on so many communities like Quesnel, research into PHC and collaboration will continue to flourish. To be sure, as a framework for analysis, Deber and Baumann's categories (financing/funding, regulation/liability, electronic health records and health human resources) represent a constructive starting point for researchers. They encapsulate the factors that facilitate and inhibit interdisciplinary collaboration in a manner that gives structure to the research. Nevertheless, collaboration must be further divided into vertical and horizontal categories to address the needs of small communities in the north and to reflect the fact that there are barriers to vertical collaboration that act as opportunities for collaboration at the horizontal level. Likewise, other contextual factors related to place, the importance of

including patients as a member of a collaborative, the role that a community can play and the dependency on physicians must be taken into account. To do so is to acknowledge the impact of contextual factors on the delivery of PHC services to a community.

In broader terms, the division of collaboration into vertical and horizontal categories highlights the importance intergovernmental relations plays in the creation and delivery of PHC services. The delivery of PHC services is a dynamic process that is influenced by factors such as the level of centralization or decentralization within the federal system and the effect this has on intergovernmental relations. Indeed, vertical collaboration between the federal and provincial governments gave rise to the PHCTF. Further collaboration between the province and Northern Health allowed for the creation of the Community Collaborative.

Future research might examine the role that PHC can play in the delivery of health services to Aboriginal peoples. The health status of Aboriginal peoples, as with others living in small northern communities, has always been below the national average. Given the adaptability of PHC collaboration to suit the needs of a particular population, it only seems logical that a PHC system may be the effective choice for Aboriginal communities.

The role that a PHC system plays was not lost to federal and provincial/territorial governments. One of the envelopes created by the federal government was devoted to the delivery of PHC services to Aboriginal peoples.[426] It would be interesting to examine a PHCTF funded Aboriginal community using the categories outlined in this thesis. The division of collaboration into vertical and horizontal aspects may prove useful given the increasing autonomy Aboriginal peoples have through self-government. Locally, the

[426] Health Canada, *Primary Health Care Transition Fund.*

Nazko Nation is in the Stage Four of treaty negotiations. If the treaty is finalized, it would be interesting to examine how the new-found autonomy will impact the working relationship that the Nazko government has with Northern Health concerning the delivery of PHC services to the community.

Another area of interest may be the delivery of PHC services to people at-risk. Currently in Quesnel a homeless shelter is being built in the downtown area. Discussions have begun in an effort to determine how the people who will utilize the shelter would be best served medically. There is some debate as to whether a collaborative that includes the participation of the people living at the shelter should be developed. Again, the role that vertical and horizontal collaboration could play is worthy of further exploration.

As indicated, all PHC research or initiatives in small northern communities should include an account of the contextual factors as described by this thesis. If one incorporates only generic factors, one discounts important attributes of Canada and of British Columbia, the diversity of the geography and the people.

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UNIVERSITY OF NORTHERN BRITISH COLUMBIA

RESEARCH ETHICS BOARD

MEMORANDUM

To: Julie Andow
CC: Gary Wilson

From: Henry Harder, Chair
Research Ethics Board

Date: February 7, 2007

Re: **E2005.0923.096 (new #E2007.0207.021)**
The possibility of long term sustainable changes to primary health care services: A case study of primary health care services in Quesnel

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Thank you for submitting the above-noted research proposal and requested amendments to the Research Ethics Board. Your proposal has been approved. We have re-issued this approval with a new reference number as the original time period on your previous approval has expired.

We are pleased to issue approval for the above named study for a period of 12 months from the date of this letter. Continuation beyond that date will require further review and renewal of REB approval. Any changes or amendments to the protocol or consent form must be approved by the Research Ethics Board.

Good luck with your research.

Sincerely,

Henry Harder

northern health

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March 6, 2007 File #RRC-2007-0006

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S100 – 100 Campus Way
Quesnel BC V2J 7K1

Dear Ms. Andow:

RE: The factors that influence sustainable collaboration in the delivery of primary health services: Quesnel, a case study

Thank you for taking time to respond to our questions. You have responded to the items as asked and made the necessary changes. Your study has met the requirements of the Northern Health Research Review Committee and you may proceed.

Enjoy your work! We look forward to hearing about your findings.

Sincerely,

Suzanne Johnston, NH Research Review Committee Chair
Vice President, Academic Affairs & Regional Development

SJ/kb

CC: File