NURSING PRACTICE, CONTINUITY OF CARE, AND MATERNAL-INFANT HEALTH OUTCOMES IN A REMOTE FIRST NATIONS COMMUNITY

by

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ABSTRACT

The purpose of this ethnographic study was to explore nurses' primary care practice, continuity of patient care, and clinical health outcomes in one remote First Nations community in Canada. This work was underpinned by previous conceptual work in (a) primary health care, (b) The Nursing Role Effectiveness Model (i.e., a structure-processoutcomes model), and (c) continuity of care. Continuity was conceptualized in terms of relational, informational and management continuity. Clinical health outcomes were explored through quantitative data abstracted from patient chart review on two selected health indicator conditions: (a) prenatal care and (b) infant care through the first year. Focusing on maternal-infant outcomes offered a window through which to explore nurses' practice and examine continuity at the individual level and importantly, to extrapolate findings related to continuity and fragmentation beyond the individual level to implications at the community and population levels. Indicator condition criteria, originally developed for the Burlington Randomized Trial of nurse practitioner practice, were revised and updated to reflect current clinical practice. Additional data from patient chart reviews were collected to provide context for the quantitative outcomes data. Ethnographic data collection strategies included interviews with nurses, other health care professionals and paraprofessional staff, field observations (including observations of nurse-patient encounters), and document and artefact review. Four over-arching themes emerged from analysis and interpretation of the data: (a) nurses' work, influenced by a broader context of inequity and marginalization, occurred at the margins of mainstream nursing practice, (b) health outcomes and continuity of care were characterized by fragmentation, (c) nurse-patient encounters were suggestive of relational disengagement and (d) dissonance existed between perceptions of health care and demonstrated health outcomes. Nurses' practice was subjected to and shaped by the same

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contextual issues that were associated with inequity and marginalization in this study. Until this context, specifically the social determinants that exert such profound influence on the health of aboriginal Canadians, begins to shift, shifts in nurses' practice are unlikely to be either effective or sustainable.

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^{*} a pseudonym for the study site community

CHAPTER ONE

INTRODUCTION

Background and Rationale of the Research

Anecdotal evidence from both patients and practitioners, along with my own observations from clinical practice and recent health services literature (Biem, Hadjistavropoulos, Morgan, Biem, & Pong, 2003; Reid, Haggerty, & McKendry, 2002) suggests that fragmentation of patient care represents a profound and prevalent problem throughout the Canadian health care system. Patients who experience fragmented health care are also variously described as being "lost to follow-up", or having "fallen between the cracks". These patients typically receive care from multiple health care providers, often at all three levels of care (i.e., primary, secondary and tertiary), and are often seen by providers at frequent intervals, yet they fail to achieve either optimal clinical outcomes or optimal continuity of care. Instead, these patients experience "revolving door" health care, presenting and re-presenting for exacerbations of the same health care conditions.

Fragmentation of care may have even more potentially disastrous consequences for patients who live in rural and remote communities than it does for patients who reside in urban or suburban centres. Residents of rural and remote communities are further removed (both in time and distance) from the level of definitive treatment that is only available in larger population centres. Patients in these communities lack the safety net implied by, for example, proximity to a tertiary level emergency department, or full medical specialist services. These patients are also more likely to be affected by health care delivery issues such as high rates of staff turnover (both nursing and medical staff), lack of supports and resources within the community, and difficulty in recruiting and retaining highly qualified personnel (Fontaine, 2005). These issues challenge the delivery of quality health services in all settings

but their effects may be more pronounced in rural and remote settings due to the overall sparse nature of services (Romanow, 2002).

The challenges inherent in delivering effective health services to residents of rural and remote communities are compounded further when these communities are also aboriginal communities.¹ Health status indicators confirm the poor health status of aboriginal Canadians relative to the non-aboriginal Canadian population (Canadian Institutes of Health Information [CIHI] 2004a; Indian and Northern Affairs Canada [INAC], 2003; Martens, Sanderson, & Jebamani, 2005). Life expectancy rates are on average almost 7 years lower in the aboriginal population, aboriginal infant mortality rates in 2000 were 22% higher than the 2001 Canadian rate (FNIHB, 2005), and the prevalence of chronic debilitating illness such as diabetes and cardiovascular disease is increasing (CIHI; National Forum on Health, 1997; INAC; Shah, Hux, & Zinman, 2000; Young, Reading, Elias, & O'Neil, 2000). Despite acknowledgment by major health care system stakeholders that such unacceptably poor health status is rooted in the social inequities that prevail in most remote aboriginal communities (CIHI; Romanow, 2002; Royal Commission on Aboriginal Peoples [RCAP], 1996), little has changed either in the way health services are delivered in these settings, or in the social, economic, political and enculturated social conditions² that predominate and are

¹ Throughout this work the term *aboriginal* is used to refer in an inclusive sense to indigenous Canadian populations (RCAP, 1996). These are people who identify or are recognized as First Nations, Inuit or Métis. The study site community was a First Nations community where the majority of residents held "registered" First Nations status; therefore, the term *First Nations* is used in this work when referring specifically to the study site, and to First Nations patients and / or residents of the study site. The more inclusive term *aboriginal* will be used in this work when I refer more broadly to the wider context of aboriginal health or social issues, or to issues that are relevant to aboriginal people generally. No differentiation is made or implied in this work between aboriginal people with "registered Indian status" versus those without status. The use of the term aboriginal in this work is not meant to be inclusive of aboriginal or indigenous people of countries other than Canada. ² I am using the term "enculturated social conditions" in this sentence to indicate the cultures of poverty, unemployment, and abuse that are the legacy of colonialism, have developed as a result of historical social inequities, and that now serve to perpetuate the cycle of inequity within aboriginal communities (Gregory, 1992; O'Neil, 1986; RCAP, 1996). These cultures are differentiated from aboriginal and First Nations cultures per se.

barriers to improving health. For example, the recent evacuation in October 2005 of several hundred residents from the First Nations community of Kashechewan in northern Ontario was prompted by health problems resulting from the community's contaminated water supply. Yet concerns regarding water safety in the community had been recognized for at least two years prior to the large-scale evacuation that finally focused media and political attention on the social, economic and political conditions that had fostered this community health crisis (Bailey, 2005).

Inevitably, the context in which people live and in which health care is delivered, and the structure of health services delivery exert strong influences on patient health outcomes and continuity of care. This may seem to be a rather obvious assumption; conversely, I submit that we persistently fail to examine these influences in studies of health care and health outcomes (MacMillan, MacMillan, Offord, & Dingle, 1996). Previous research suggests that the structure and context of health service delivery in remote indigenous communities influences the practice of outpost nurses³ (Vukic & Keddy, 2002). However, little information exists informing us as to how the various aspects of the "bigger picture" of health care influence the process and outcomes of care, and especially continuity of care. While such speculation is likely relevant to health care in all settings, it is particularly critical in the context of health care delivery in remote aboriginal communities. Residents of these communities are not only more vulnerable because their already-poorer health status places them at increased risk of falling through the cracks of health care delivery, but also because of disparities in accessing health services in northern and remote settings (Romanow, 2002). Thus, when these patients fall through the cracks, they are less likely to land in a safety net.

³ Nurses employed in an expanded role in Nursing Stations in remote aboriginal communities in Canada have traditionally been identified as *outpost nurses*. There is no standard usage of the term outpost nurse; this is not a credential but a job descriptor, thus any nurse employed in an outpost setting may be considered to be an outpost nurse.

The **problem** addressed by this research is the potential for discontinuity of health care in remote aboriginal communities. Better understanding the relationships between the context and structure of health services delivery, the process of nursing care, and health outcomes could potentially improve continuity of patient care and health outcomes.

Health care in remote aboriginal communities continues to be delivered chiefly by nurses. Nurses are responsible for not only the provision of primary care but also for community health nursing, public health care and often, the non-nursing health services that are generally provided by an interdisciplinary team of health providers in less remote settings. The team often includes (but is not limited to) physicians, pharmacists, physiotherapists, dieticians, social workers and mental health workers. In remote communities where visits from other interdisciplinary team members may occur infrequently (or not at all), nurses' responsibilities often also encompass role aspects of these other health providers. Thus, as the principal and often sole providers of health services in remote communities, any exploration of health services delivery in these settings necessarily implies an exploration of the role played by nurses.

There has been a long-standing recognition of the value of a primary health care (PHC) approach to address the social determinants that influence the health of aboriginal people (O'Neil, 1986). The expectation that outpost nurses (i.e., nurses employed in Nursing Stations in remote communities), provide care within a framework and philosophy of primary health care is similarly long-standing (Doucette, 1989). My previous research suggested that while competency in providing primary care is fundamental to outpost nursing practice, experienced outpost nurses recognized the futility of health service delivery that fails to address the bigger picture of health determinants (Tarlier, Johnson, & Whyte, 2003). Yet nurses working in this diverse and demanding role often receive little or no additional

educational preparation to help them meet the expectations of a scope of nursing practice that is now broadly acknowledged as being both expanded and advanced,⁴ and increasingly identified as a primary health care nurse practitioner role (Kulig et al., 2003; Stewart & MacLeod, 2005; Tarlier et al.; Vukic & Keddy, 2002).

Outpost nurses have long been recognized for the quality of healthcare they provide to northern residents (Robertson, 1973, as cited in Spitzer et al., 1974), despite a lack of evaluative outcome studies to substantiate this claim. Outpost nurses themselves have historically viewed themselves as functioning in a nurse practitioner role (Chaytor, 1994). The model of outpost nursing that developed originally to meet the health needs of residents of remote communities has provided a template for contemporary conceptualizations of the primary health care nurse practitioner role in Canada. But paradoxically, whereas the nurse practitioner role is evolving as an advanced nursing role requiring graduate level education in many Canadian jurisdictions, including at the national level (Canadian Nurses Association [CNA], 2003), most nurses employed in outpost nursing roles continue to be prepared at the diploma or baccalaureate level (Kulig, 2005; Stewart & MacLeod, 2005). Outpost nurses require a broad base of knowledge encompassing public health and community development as well as primary care (Health Canada, 2001c, 2001d; Tarlier et al., 2003). Yet many, if not the majority of nurses employed in Nursing Station settings receive little if any additional education to better prepare them to meet the expectations of an implicitly advanced and

⁴ In this dissertation, the use of the terms "advanced" and "expanded" nursing practice is consistent with the definitions provided in the Canadian Nurses Association document, *Advanced Nursing Practice: A National Framework* (2000). Advanced Nursing Practice is defined as "an umbrella term [that] describes an advanced level of nursing practice that maximizes the use of in-depth nursing knowledge and skill" (p. 4). Expanded practice is defined as "practice that is characterized by the use of competencies required to perform activities usually deemed to be outside the current scope of nursing practice" (p. 5). Thus, the practice of an individual nurse may represent: (a) *advanced* practice (e.g., Clinical Nurse Specialist); (b) *expanded* practice (e.g., a clinic nurse who performs a specific skill, such as collecting Pap smears, but who may lack the knowledge base necessary to support a broader primary care practice), or (c) *advanced and expanded practice* (e.g., Nurse Practitioner [CNA, 2003]).

explicitly expanded scope of practice (Stewart, D'Arcy, Pitblado, Forbes, et al., 2005; Stewart & MacLeod; Vukic & Keddy, 2002).

There is currently a gap in our knowledge regarding what, if any, additional knowledge and skills are necessary to support effective continuity of care and safe, competent primary care delivery by nurses employed in remote communities. In their study of continuity of care in three remote First Nations communities, Minore, Boone, Katt, Kinch, and Birch (2002) identified the need for research "to identify the *core knowledge* which all practitioners – even those going into the communities on a short-term basis – must have: *the procedural, cultural and clinical essentials* [emphasis added]" (p. 24). Commissioner Romanow (2002) similarly noted the need to adequately prepare health care practitioners for practice in both rural / remote and aboriginal communities.

This study explored nurses' enactment of core knowledge in providing primary care services to women and children in one remote First Nations community. To identify the core knowledge needed by health practitioners in these settings demanded a better understanding of how core knowledge influenced continuity of patient care and patient health outcomes. How do we judge what knowledge is important for nurses to have without first understanding how that knowledge contributes to positive health outcomes? Moreover, nurses do not work in a vacuum, but within a community context and a structure of health services delivery (Vukic & Keddy, 2002) that also predictably influences patient outcomes directly, as well as indirectly by influencing nurses' work (Sidani, Doran, & Mitchell, 2004).

Research Purpose and Objectives

The **purpose** of this study was to address the identified gap in health services delivery knowledge by extending our understanding of how nurses, as the chief providers of primary care (delivered within a primary health care model) influenced patient care and health

outcomes in one remote First Nations community. Continuity of care (conceptualized as the inverse of fragmented care) was the research phenomena of ultimate interest. Process-specific outcomes that included informational, management and relational continuity of care (Reid et al., 2002) and explicit clinical health outcomes were evaluated through the use of two specific clinical health indicator conditions: (a) the prenatal health of women and (b) infant health. These two indicator conditions were selected because they are recognized to be essential elements of primary health care (WHO, 1978). As well, several of the common key indicators of population-based health are related to maternal-infant health (e.g., infant mortality, premature births, birth weights, immunization rates). Additionally, aspects related to the context, structure and processes of the local health services system were explored and described. This information contributed to a better understanding of how these aspects influenced continuity of care both directly, and indirectly by influencing nurses' work.

The **main objective** of this study was to develop a big-picture understanding of how nurses, as the principal providers of primary care in a remote First Nations community, yet recognized as just one part of a complex health care system, influenced continuity of care and clinical outcomes.

The following secondary research objectives further focused and guided this study:

 To explore how specific aspects (e.g., structure and organization of the Nursing Station, staffing, nursing workload, experience and preparation of nurses to function as a primary care provider, availability of resources, communication and referral patterns within and external to the Nursing Station) of the health service delivery system in the selected remote community influenced continuity of care;

2. To explore how these aspects supported or hindered continuity of care;

- To explore how these aspects affected the nurses' ability to influence clinical outcomes and informational, relational and management continuity of care;
- To explore the clinical, procedural and cultural⁵ core knowledge nurses demonstrated in the process of providing primary care.

Organization of the Dissertation

The dissertation has been organized into nine chapters. **Chapter One** has presented a brief introduction to the research by providing the background and rationale for the study, the problem statement, purpose, and research objectives. **Chapter Two** presents the conceptual underpinnings of the research. The three conceptual frameworks that provided structure for the research design and helped to focus data collection and analysis were: (a) the primary health care model, (b) the Nursing Role Effectiveness Model (Irvine, Sidani, & McGillis Hall, 1998), and (c) the continuity of care conceptual framework (Reid et al., 2002). **Chapter Three** offers a critical synopsis of the relevant literature, organized in sections that pertain to the context of health and health services in remote aboriginal settings, outpost nursing and the evaluation of primary care. **Chapter Four** describes the research methods, data collection, analysis and ethical considerations of this ethnographic, mixed methods project.

Chapters Five through Eight present an integrated interpretation of study findings. **Chapter Five** describes the context of the study site, both in terms of the community, the organization of health services, and the structure of nurses' work. **Chapter Six** presents the

⁵ I am defining nurses' cultural core knowledge in an inclusive sense; to imply the knowledge and analytical skills that support an individual nurse's ability to critically reflect on her / his interactions with people who are perceived as being "different" to oneself or to the mainstream (Browne, 2005; Browne & Fiske, 2001; Papps & Ramsden, 1996). That is, cultural core knowledge implies knowledge of the "culture" that is attributable to social inequities and the historical socio-political context of aboriginal health, the unique ethnic heritage of a community of aboriginal people that a nurse may be providing care to, as well as the "culture" implied by living and working in a remote northern community.

data from review of patient charts. This data includes quantitative patient health outcomes data on the two selected clinical health indicator conditions, and narrative data related to continuity of patient care that were collected from patient charts as contextual notes.

Chapter Seven presents findings related to the process of nursing care and continuity of care, derived primarily from observations, interviews, and artefacts. **Chapter Eight** presents an integrated interpretation of findings from chart review, observations, and interviews. The intersection of health outcomes, the organization and structure of health services, the process of nursing care, and continuity of care are described. In **Chapter Nine**, I reflect on study methods and the significance of this study, and present a discussion of the implications of study findings for nursing practice, health and health services in remote aboriginal communities. Four recommendations relevant to the organization and structure of health services are offered, as well as suggestions for future research.

CHAPTER TWO

CONCEPTUAL FOUNDATIONS

Introduction

This study is built on conceptual work in three domains of health services research: (a) primary health care research, (b) The Nursing Role Effectiveness Model, and (c) continuity of care. I will start by offering a contemporary conceptual definition of primary health care that is relevant to health services research, followed by a discussion of the Nursing Role Effectiveness Model, and an overview of recent and relevant conceptual work on continuity of care.

Primary Health Care

Primary health care provides both a philosophical perspective and a broad conceptual framework within which to situate the proposed study. In 1978 the World Health Organization (WHO) identified PHC as the optimal approach to improving health on a global basis, and identified access, equity, essentiality, community participation and empowerment, and multisectoral collaboration as the fundamental principles of PHC. The Canadian health care system has long espoused PHC as an approach to improving the health of Canadians, to the extent that health care in Canada is now largely characterized as being a PHC system (CIHI, 2003). Thus, the Canada Health Act (1984) is based on the five principles of access, universality, portability, comprehensiveness, and public administration. Two additional principles prohibit user fees or extra billing by health providers. The principles underpinning the Canada Health Act and PHC may together be summarized as representing a participative, community driven system of health care that ensures access to equitable, essential health care for all.

A significant point of difference between the Canada Health Act (1984) and a PHC approach is that the Canada Health Act primarily addresses primary care health needs and hospital-based acute care, but does not specifically acknowledge the influence of the social determinants of health. In contrast, PHC clearly recognizes the important role of broader socio-historical, political, economic, environmental and cultural factors in determining the health of individuals and populations. Despite early recognition of these broader dimensions in the Lalonde report (1974) and the Ottawa Charter for Health Promotion (WHO, Health & Welfare Canada, & Canadian Public Health Association, 1986), as Romanow (2002) recognized, this disparity in focus has presented a barrier to health care reform; that is, in achieving a full transformation to a PHC system.

Conceptualizing health care based on a PHC framework highlights the links between the larger social and environmental context, the structure of health services, and the processes of achieving health. PHC enables a "big picture" view of the multiple factors - both within and external to the health care system itself - that influence health (O'Neil, 1986). The move towards identifying the Canadian health care system as a PHC system, as the CIHI (2003) report demonstrates, may be viewed as a move towards acknowledging the broader determinants of health that influence the primary care health needs of the population, as well as the secondary and tertiary level needs that are associated with hospital-based care.

A key point in understanding the delivery of health services within a framework of PHC lies in differentiating the role of primary care providers per se from PHC, while recognizing the interface between primary care and PHC. The WHO (1978), distinguishing primary care from PHC, identified the provision of accessible, essential primary care as one strategy within an integrated PHC framework (Tarlier et al., 2003). While primary care practitioners chiefly provide health care services directly to individuals and families, the

philosophical underpinnings of PHC imply the understanding that health is also influenced by the broader social context and the social determinants of health. Health status reflects more than a linear causal relationship between the provision of health services and health. Thus, a PHC orientation to health services research acknowledges the influence of the broader context of health services delivery while endeavouring to understand and evaluate the more specific relationships that exist between health and the provision of health services.

By opening up a "big-picture" view of health services delivery, a PHC orientation to health services research also opened up a large and complex scope of potential foci for this research endeavour. The possible foci engendered by a PHC orientation suggested that while acknowledging the bigger picture, the boundaries of this research project be clearly demarcated. Thus, while the focus of some PHC research is on the "big picture" itself; that is, on the interface of health and its social determinants at the level of the community (e.g., Hancock, Labonte, & Edwards, 1999), the main focus of the present study was the provision of primary care services as one strategy within an explicitly defined PHC model of health care delivery.

The key relevant features of the broader social and community context of health service delivery will be discussed as these are presented in the literature. PHC provided one of the theoretical lenses that guided data collection and analysis and the discussion of the study findings. Situating this study within a PHC framework offered a way to focus on how primary care was provided by nurses in one remote First Nations community, while simultaneously accounting for, acknowledging, and better understanding the phenomena of interest within the larger context.

The Nursing Role Effectiveness Model

A conceptual framework adapted from the Nursing Role Effectiveness Model (Irvine et al., 1998) informed this study. Based on and developed from Donabedien's (1980) work, the Nursing Role Effectiveness Model uses the framework of structure, process and outcome to identify how nurses contribute to clinical outcomes (see Appendix A). Using this framework, information relevant to assessing multiple aspects of quality of care is organized in terms of structure, process and outcome. Donabedian described structure as "the relatively stable characteristics of the providers of care, of the tools and resources they have at their disposal, and of the physical and organizational settings in which they work" (p. 81). Process refers to the "set of activities that go on within and between practitioners and patients" (p. 79), and outcome, as used by Donabedian, refers to "a change in a patient's current and future health status that can be attributed to antecedent health care" (p. 83).⁶

Although Donabedian's historic work (1966; 1980) was originally directed at evaluating the quality of medical care (i.e., physician practice), it has since been applied more generally to the evaluation of health care systems (e.g., Aday, Begley, Lairson, & Slater, 1998, as cited in Grembowski, 2001), as well as to evaluations of nursing practice (e.g., Doran, Sidani, Keatings, & Doidge, 2002) and nurse practitioner practice (e.g., Sidani & Irvine, 1999). Of considerable relevance to this study was a recent research project that used Donabedian's structure-process-outcome framework to examine continuity of care for First Nations clients in remote communities in Ontario (Minore et al., 2002). The framework

⁶ I have deliberately used direct quotes from Donbedian (1980) to define structure, process and outcome, to clarify that I am defining these terms in the sense that Donabedian originally proposed in his framework. I believe that over the course of the two decades or more since Donabedian first presented his framework, there has been a tendency among researchers to continue to use these terms but without clearly defining them. Subsequently, Donabedian's original meanings have become somewhat lost. That is, we presume to understand what is meant when we use the term "structure", "process" or "outcome", but without clearly defining our meaning, there is potential for the meanings to shift, creating the possibility that these terms may hold different meaning for different individuals.

of structure-process-outcome was used as an organizing strategy for both data collection and discussion of the study results. The Minore et al. study exemplifies and attests to the continuing usefulness of Donabedian's work to contemporary explorations of quality of health care, and will be discussed further in the literature review section.

Donabedian (1980) described his structure-process-outcome model in terms of welldefined concepts and relational statements, but recognized the inherent difficulty in ascribing the status of theory to a general model that encompassed multiple facets of care:

I know that many ambiguities remain, as becomes apparent when one tries to classify specific phenomena exclusively under one of the three headings. This is because the three-part division is a somewhat arbitrary abstraction from what is, in reality, a succession of less clearly differentiated, but causally related elements in a chain that probably has many branches. In such a chain, each element is, at least to some extent, a cause of the element that follows, while it is itself caused by the elements that precede it.... in a chain of this kind it is futile to try to distinguish means from ends. The analyst's purposes and perspectives determine what segment of the chain he will study, and what is a means and what is an end. (Simon, 1961, cited in Donabedian, p. 84)

It seems clear that while Donabedian did not view his model as a theoretical model per se, he left the door open to the possibility of theoretical application, or the development of theory, by other researchers who might apply the model to more focused and specific research questions.

Nursing researchers Irvine et al. (1998) adapted Donabedian's (1980) framework to facilitate a closer focus on the role played by nurses with regard to patient outcomes, but within a larger understanding of health system structure. As mentioned, the Nursing Role Effectiveness Model has previously been used as the conceptual framework for research evaluating the quality of both nursing (Doran et al., 2002) and nurse practitioner practice (Sidani & Irvine, 1999). Initial empirical tests of the conceptual model have demonstrated that "the model provides a well-defined conceptual framework to guide the evaluation of

outcomes in acute care, in-patient settings, and to examine the contribution of nurses within these settings" (Doran et al., p. 38). While noting that further testing is necessary to demonstrate the usefulness of the model in evaluating nurses' independent role function (e.g., in a nurse practitioner role), these researchers also stated "The Nursing Role Effectiveness Model provides a theoretical basis for exploring the relationships among organizational and unit structural variables, process and patient outcomes" (p. 36). More recently, Sidani et al. (2004) discussed a structure-process-outcome model as a framework within which "proposed relationships can be specified" (p. 64), and identified this as a "theory-driven approach to evaluating quality of nursing care" (p. 60). Thus, it is evident that the Nursing Role Effectiveness Model is in the process of evolving as a theoretical model to guide the appraisal of the quality of nursing and advanced nursing practice in a variety of settings.

The foregoing passage from Donabedian (1980) also implies that the relationships between structure, process and outcome are potentially multi-causal and not entirely linear, a view that is congruent with a PHC perspective. That is, Donabedian recognized that elements external to rendered health services influence health: "The specificity of many outcomes as a basis for inferences about the quality of care tends to be low... because many factors other than medical care influence health in a general sense, and, more specifically, the response to care" (p. 106). Sidani et al. (2004) similarly recognized that multiple factors influence outcomes: "The world of practice is a complex system of multiple factors, multiple effects, and mutual causation" (p.60, citing Hegyvary, 1993). Of particular relevance to the present study, one of the external factors identified by Donabedian was inequity in the social valuation (and thus, access to health services) placed on "different segments of the population" (p. 16), or in contemporary language, on marginalized populations. Situating the Nursing Role Effectiveness Model of structure-process-outcome within a PHC framework

allows such influences to be acknowledged and facilitates a clearer articulation of the broader socio-contextual factors that influence health services structures, as well as the processes and outcomes of health care.

The Nursing Role Effectiveness Model offered a tested conceptual framework by which to organize the multiple aspects of health service delivery that were of interest in this study, while simultaneously facilitating a more specific focus on relevant aspects of nursing practice. Integrating the Nursing Role Effectiveness Model within a PHC model offered a conceptual framework that supported a research focus on the specific phenomena of interest while keeping the "big picture" firmly in mind.

Continuity of Care

Continuity of care, as conceptualized within the framework of this study, was related to fragmentation of care, in that continuity of care was conceptualized as the inverse of fragmented care. That is, health services researchers postulate that improved continuity of care decreases fragmentation of care (Sparbel & Anderson, 2000a; Haggerty et al., 2003). However, as these researchers have noted, one of the main challenges of investigating continuity of care as a research phenomenon has been the ambiguity and range of definitions that historically have characterized our understanding of continuity of care (Sparbel & Anderson; Haggerty et al.).

Continuity of care is a term that has been used in the health care literature at least as far back as the 1960's, when Donabedian (1966) identified it as a dimension of quality of care, and observed the need for further conceptual exploration of this (and other related) concepts. Traditionally, continuity of care has been defined in diverse disciplinary-specific ways within the various health disciplines. Haggerty et al. (2003) described the major definitional variations in terms of four health care domains: primary care (i.e., predominantly

arising from the primary care medical literature), nursing, mental health and disease management.

Within primary care medicine, continuity has been defined largely as an interpersonal dimension of care: as long-term one-to-one patient-provider relationships (e.g., Burge, Lawson, & Johnston, 2003; Christakis, Wright, Zimmerman, Bassett, & Connell, 2003; Nutting, Goodwin, Flocke, Zyzanski, & Stange, 2003; Saultz, 2003). In contrast, nursing has interpreted continuity of care in terms of the co-ordinated transfer of patients and communication of information between different nurse providers and parts of the health care system (Sparbel & Anderson, 2002a; e.g., Harrison, Toman, & Logan, 1998). In the domain of mental health care, the focus has been on both the coordination of diverse health and social support services, and the stability of collaborative health care provider teams (e.g., Fortney et al., 2003; McCann & Baker, 2003). The disease management domain arose from speciality medical practice in managing complex diseases (e.g., diabetes, cardiovascular disease). The emphasis here is on the continuum of care; that is, the content and coherence of care (Haggerty et al., 2003). Thus, continuity of care has conventionally been conceptualized and defined in disciplinary-specific ways that have challenged efforts to conceptualize a multidisciplinary understanding (Haggerty et al.). However, the concept of continuity of care has recently received renewed attention in both the nursing and health services research literature. Recent work by nursing scholars (Sparbel & Anderson, 2000a, 2000b) and health services researchers (Biem et al., 2003; Donaldson, 2001; Haggerty, Reid, McGrail, & McKendry, 2001; Reid et al., 2002) further clarified and defined a concept of continuity of care that has relevance from an interdisciplinary perspective and across the health care system.

Relevant to this study was the recent conceptual work done by Reid et al. (2002) in the context of primary care delivery in Canada. This work identified three types of continuity: (a) informational continuity, (b) relational continuity, and (c) management continuity, and asserted that continuity of care is a multi-faceted concept that encompasses all three of the identified types of continuity. Informational continuity encompasses the transfer of information and the accumulated knowledge of a patient. Relational continuity refers to both on-going patient-provider relationships and consistency of personnel. Management continuity depends on coordination and consistency in the approach to treatment management, and flexibility, or an individualized approach to care. Reid et al. offered this summary of continuity of care:

Continuity is the result of a combination of adequate access to care for patients, good interpersonal skills, good information flow and uptake between providers and organizations, and good care coordination between providers to maintain consistency. For patients, it is the experience of care as connected and coherent over time. For providers, it is the experience of having sufficient information and knowledge about a patient to best apply their professional competence and the confidence that their care is recognized and pursued by other providers. (2002, p. iv)

A recent study of continuity of care and rural Canadian seniors (Biem et al., 2003) built on the conceptualization of continuity provided by Reid et al. (2002) by identifying seven characteristics of optimal continuity of care. Biem et al. described these seven characteristics as the "seven c's" (p.4):

- 1. Contact (i.e., patient-provider relationships [relational continuity]);
- 2. Collaboration (i.e., between providers and patients [relational continuity]);
- 3. Communication (i.e., between providers [informational continuity]);
- 4. Coordination (i.e., multidisciplinary teamwork [management continuity]);
- 5. Contingency (i.e., "timely access to providers for urgent questions, worsening symptoms or complications", p.4 [relational and management continuity]);
- 6. Convenience (i.e., of access [relational and management continuity]); and
- 7. Consistency (i.e., in the approach to treatment management in spite of different providers being involved in care [management continuity]).

The seven characteristics of continuity described by Biem et al. (2003) were consistent with the conceptualization of continuity provided by Reid et al. (2002), and pushed their conceptualization deeper in terms of offering a way in which to conceptualize the facets of continuity in greater detail. The "seven-c's" offered some concrete reference points from which to consider the complex phenomena of continuity of care. For instance, while relational continuity as defined by Reid et al. patently encompassed the ideas of patient-provider contact and collaboration, Biem et al.'s work defined these as specific characteristics that contributed to relational continuity. Biem et al.'s characteristics also suggested areas of overlap between types of continuity; for example, coordination related to both relational and informational dimensions of continuity. Additionally, the characteristics of contingency and convenience suggested that access to care was an important aspect of continuity that might be more clearly addressed in the Reid et al. typology of continuity.

A reconceptualization of continuity of care provided by Donaldson (2001) has less relevance to the present study but is worthy of mention from the perspective of two points in particular. First, Donaldson conceptualized and defined continuity of care in terms of agency theory. The Agency Model of Continuity she presented has patent similarities to a structureprocess-outcome model. In Donaldson's model, continuity is conceptualized as an intermediate outcome and agency as an outcome: continuity is "an intervening variable that may affect agency" (p. 283). While the notion that a provider-patient relationship may affect agency is congruent with the PHC principle of empowerment, viewing agency strictly within the narrow confines of that relationship, and without acknowledging the effect of broader social determinants on agency, is incompatible with the PHC conceptual framework that guided this study. Second, Donaldson points out the fallacy of using health outcomes alone as measures of agency, and thus of the process of continuity, because health outcomes may

also be influenced by other factors. However, the other factors recognized by Donaldson are restricted to individual patient factors and "redundancy" (p. 284) of providers and treatments. Thus, Donaldson's model of continuity fails to acknowledge the influences on health that arise from the broader context in which the health service system operates. These identified limitations of Donaldson's conceptualization of continuity of care therefore limited its usefulness to this study.

Donabedian (1980) also addressed continuity of care, but as one of a triad of attributes of quality of care. He identified these attributes as accessibility, continuity and coordination. While distinguishing between these three features, Donabedian's description of these attributes is nevertheless compatible with the conceptualization of continuity presented above:

Care may be said to be accessible when it is easy to initiate and to maintain.... Coordination may be regarded as the process by which the elements and relationships of medical care during any one sequence of care are fitted together in an overall design. Continuity means lack of interruption in needed care, and the maintenance of the relatedness between successive sequences of medical care. A fundamental feature of continuity is the preservation of information about past findings, evaluations, and decisions, and the use of these in current management, or their orderly and reasonable evolution. Coordination involves the sharing of such information among a number of providers to achieve a coherent scheme of management. (p. 22-23)

Taken together, Donabedian's view of accessibility, continuity and coordination demonstrated many of the same characteristics evident in the Reid et al. (2002) report and the Biem et al. (2003) study; for example, the communication of information between providers, and a consistent and organized approach to management of care among different providers.

Donabedian (1980) not only distinguished between the three attributes of quality of care, but also between these attributes and quality of care per se. That is, the definition of quality of care is not wholly dependent on accessibility, continuity, or coordination.

However, these attributes of quality may be dependent on the definition of quality of care,

and in particular, on the existence of some normative definition or concept of rational care, or what might in contemporary terms be considered evidence-based care, or "best practice".

Donabedian (1980) maintained a conceptual separation among the attributes of quality of care primarily as a means of setting boundaries on the scope of his work; significantly, he made a point of stating that other formulations of these concepts could be equally valid. Thus, the foregoing discussion supported the assumptions on which the present study rested: (a) that continuity of care may be conceptualized in a broad, multi-faceted sense that encompasses the attributes of accessibility, continuity and coordination, and (b) that continuity of care, while related to the overall quality of care, does not in itself represent the sum of quality of care. Evaluation of the quality of care requires a normative definition of what constitutes quality care in addition to assessment of continuity: "If continuity means noninterruption of needed care, the decision that care is needed involves a judgement of quality" (Donabedian, p. 23). In contemporary terms, quality, or appropriateness of care, is most appropriately evaluated in terms of evidence-based clinical guidelines or "best practice" standards.

The inclusion of a component of clinical outcome evaluation in this study grounded the conceptual framework in the reality of clinical practice by allowing for an evaluation of the adequacy of care based on normative standards of practice. Ideally, some relationship must be demonstrated to exist between continuity of care and clinical outcomes (Middleton & Lumby, 1998; Sparbel & Anderson, 2002b), and ultimately, between each of these and changes in global health status. However, I was compelled, just as Donabedian (1980) was, to draw boundaries on the scope of my study. The aim of this study was to explore in a qualitative way, how outpost nurses influenced continuity of care and clinical outcomes, and not to make a judgement on the overall quality of care per se. While there has been some

attempt among researchers to develop measures of continuity, the current state of knowledge about continuity of care as a multifaceted and complex concept does not yet support the quantitative measurement of continuity, or thus, the possibility of making strong causal inferences about the relationships between continuity of care, clinical outcomes and quality of care (Reid et al., 2002). But as Donabedian claimed, understanding continuity of care is dependent on the quality of care; therefore, it was necessary to include some means of judging quality of care in this study.

Considering continuity of care in relation to a structure-process-outcome model (such as The Nursing Role Effectiveness Model) raised the question of whether continuity is more properly conceptualized as part of the process of care, or as an outcome of care. In their conclusions, Reid et al. (2002) referred to continuity as a "result" (p. 15), a "product" (p. 15), and an "achievement" (p. 16), thereby implying that it may be an outcome of the process of care. But drawing on Donabedian's (1980) definition of outcome, that is, "a change in a patient's current and future health status that can be attributed to antecedent health care" (p. 83), it is difficult to justify how continuity in itself constitutes a health outcome. Continuity, conceptualized in terms of relational, informational and management continuity, seems to fit more appropriately with Donabedian's definition of process: a "set of activities that go on within and between practitioners and patients" (p. 79). The research by Minore et al. (2002), which examined continuity of care in remote First Nations communities, also operationalized continuity of care as a process; specifically, these researchers adopted an operational definition of continuity in the *process* of care, which they defined in terms of the patient receiving the required sequence of care within an appropriate time frame.

Donabedian (1980) also grappled with questions of how to conceptualize the interface between process and outcome, as well as with the question of which of these components of

assessment represented the best approach to evaluation. He briefly discussed the need for "immediate, process-specific 'mini-outcomes'" (p. 120), in addition to more general, inclusive (and consequently longer-term) measures of both process and health status. The following statement perhaps best summarized Donabedian's conclusions regarding the process-outcome interface:

...process and outcome are fundamentally linked in a single, symmetrical structure that makes of one almost a mirror image of the other, no matter how many attributes are used to test the relationship. Thus, the emphasis shifts to a more thorough understanding of the linkages between process and outcome, and away from the rather misguided argument over which of the two is the superior approach to assessment. (p. xi)

Acknowledging that a degree of slippage exists with regard to whether continuity of care is best conceptualized as process or outcome, for the purposes of this study, it was conceptualized as an aspect of the linkage between process and outcomes of care. It was reassuring to note that as Donabedian (1980) stated, his structure-process-outcome framework was proposed "as a guide, not a straitjacket" (p. 89)! Thus, the focus of this study shifted, as Donabedian suggested, to the linkages between the process of care and outcomes of care: explicitly, continuity and specified clinical outcomes. Thus, continuity of care, in combination with specific indicator-condition clinical patient outcomes, was assumed to reflect the appropriateness of care, defined in terms of clinical practice guidelines in use at the selected study site. In turn, appropriate care was assumed to have influenced patient health status. However, consistent with the PHC orientation in which this study was grounded, it is assumed that other factors, such as the social determinants of health, also contributed to and influenced peoples' health status. So while acknowledging the broad array of factors that influenced health at every level in the "big picture" view, the particular

theoretical lenses that drove this study directed the focus onto the part of the picture represented by the structure, process, and outcomes of health services delivery.

Using a broad, multidisciplinary conceptualization of continuity of care demonstrated how continuity might be conceptualized as the inverse of fragmented care. Fragmented care was exemplified by the idea of patients "falling through the cracks" of health care delivery. By the same analogy, continuity of care may be represented by the idea of ensuring the safe and efficient passage of patients as they navigate the health care system. That is, continuity of care was one strategy by which health care providers kept patients from falling between the cracks. While this evolving conceptualization of continuity of care has significant implications for the way researchers operationalize and measure continuity, much work remains to be done to further clarify and refine the concept, and the links between continuity and related concepts. This study contributes to the growing body of recent empirical work that aims to extend our knowledge of continuity of care.

Summary

The conceptual framework of PHC that underpinned this study directed attention to a multitude of factors that may be theorized as influencing health services delivery and health status. Theorizing potential relationships between these factors implied a level of complexity that confounded an "outcomes" study in the traditional sense. That is, although the measurement of clinical outcomes was one component of this study, it was not an objective of the study to assign or infer cause related to outcomes in the usual linear sense. Rather, the objective was to engage in a process of preliminary theorizing, based in the relevant literature, and then to explore how factors identified within the context, structure and process of health services delivery in one remote First Nations community together influenced health

outcomes. Thus, the role of nurses involved in the delivery of primary care represented one key factor among many influences on health and health services delivery in the study site.

CHAPTER THREE

A CRITICAL SYNOPSIS OF THE RELEVANT LITERATURE Introduction

The literature included in this review presents a broad overview of the existing knowledge relevant to this research project. Literature relevant to describing and substantiating the context of health services delivery in remote aboriginal communities is presented first, to better situate the model of structure-process-outcome and to provide a context for understanding the multiple and complex factors that influence health services. The outpost nursing literature is then discussed in terms of organizational and structural issues that influence the delivery of health services in Nursing Station settings, and nursing practice issues. Finally, selected literature pertaining to the evaluation of primary care outcomes is discussed specifically in relation to the assessment of core knowledge and practice competencies needed by nurses employed in a role that includes the provision of primary care.

Since relatively little peer-reviewed literature exists relating to several of the identified factors, this review necessarily draws from a wide variety of sources. There is a necessary reliance on relevant grey literature, and many of the sources included in this overview are government-sponsored reports, research reports that have not (at the time of writing) been published as peer-reviewed papers, and unpublished graduate student theses and dissertations. One of the advantages of including sources of literature such as royal commission and other government reports is that these often represent a relatively current public perspective on contemporary issues. They are therefore consistent with a PHC orientation that values public participation and thus are potentially a powerful source of relevant knowledge.

Context

A discussion of the contextual issues that are conceivably relevant to this research project could potentially address a very broad range of the issues that are relevant to the health and provision of health services to aboriginal Canadians living in remote communities. The discussion presented here focuses on two aspects of context that are most important to understanding and substantiating the contextual background and design of this research. One of these aspects relates to understanding the implications of "remoteness" to health services delivery in aboriginal communities. The second aspect of context addresses an understanding of how the relatively poorer health status of aboriginal Canadians, as well as health care in aboriginal communities have been influenced by socio-historical factors that continue to shape the contemporary provision of services.

The Implications of Remoteness

Defining the concepts, implications and issues relevant to rural and remote health research has become a focus of attention among health services researchers within the last six years. The Canadian Rural Health Research Society was originally formed in 1999 (at that time, as the Consortium for Rural Health Research) for the specific purpose of advancing rural and remote health research. This was followed by a Canadian Institutes of Health Research [CIHR] initiative in rural health in 2001. The impetus for this growing attention has been both increased recognition of the relatively poorer health status of rural and remote residents compared to other Canadians (Statistics Canada, 2003), and acknowledgment that health issues in rural and remote communities are different from those in urban centres. The Royal Commission Report on the Future of Health Care in Canada (i.e., the "Romanow Report") released in 2002, underscored the critical need to address these issues: "Unique rural health problems require urgent attention and unique rural conditions need to be taken
into account in addressing those problems" (p. 164). However, much of the early activity was directed towards defining "rurality". The tendency has been towards rolling together the concepts of rural and remote as though they represent one concept (i.e., "rural/remote"), rather than two related but distinct concepts, with similar and yet distinct implications for health and health services.

Contemporary research and policy documents addressing health issues in rural and remote settings reflect the lack of clear conceptual definition of the terms rural and remote (Kulig et al., 2003). Policy documents have generally failed to clearly distinguish between these two terms (Kulig et al.). Researchers conducting their work in remote settings have typically attempted to clarify the meaning of remote by adding descriptors such as isolated, semi-isolated, or northern. For example, Vukic and Keddy (2002) described the site of their research as a "northern remote community" (p. 542), Knopp's (2001) study site was a "remote setting in northern Saskatchewan" (p. 3), and Martin and Gregory (1996) described their setting as "northern" (p. 9), defining northern as being located north of the 54th parallel in Manitoba. Boone, Minore, Hill, and Hartviksen (2000) conducted a study about nonnorthern nurses' perceptions of northern practice, but did not elucidate the meaning of northern. The study by Minore et al. (2002; also, Minore et al., 2005) was conducted in three First Nations communities that were described as both remote and relatively isolated. These terms are not defined explicitly, but their meaning is implied by further description of the geographic location of the communities (i.e., approximately 400 kilometres from a secondary referral centre) and the environmental barriers (e.g., weather) that hinder access to resources outside the community. In my own previous research I used both "northern" and "outpost" to describe similarly isolated aboriginal communities that experience disparities in access and

health resources, and that are further characterized by relatively poorer health than other Canadian communities (Tarlier, 2001; Tarlier et al., 2003).

While descriptors such as remote, isolated, or northern usefully inform the reader as to the geographic location of the remote community, they fail to explicate the implications of being remote, isolated, or northern. As Kulig et al. (2003) observed, the implications of these various terms that are important to understanding health issues in these communities, has generally been assumed or taken for granted rather than made explicit. This failure to define the language in conceptual terms contributes to the overall "lack of analysis regarding the theoretical and practical meaning of rural" (p. iv), and by extension, of remote.

Thus, one of the challenges identified by rural and remote health services researchers is the need to better define the language used to describe rural and remote settings (Heath & Szpilfogel, 2002). This was the purpose of a workshop conducted jointly in 2002 by the Rural Development Institute, Brandon University, and the Department of Community Health and Epidemiology, Dalhousie University, under the auspices of the Canadian Rural Health Research Society (i.e., Workshop on Defining "Rural" and "Rurality" for Health and Health Services Research; Heath & Szpilfogel). One of the conclusions that came out of this workshop was that "meaningful distinctions between 'rural', 'remote', and 'degrees of northernness'" are needed to push forward a conceptual definition (p. 15). A second conclusion stated, "We need to be clear about who and what we are we talking about. Is the conversation about rural [remote] people, or is it about marginalized or disadvantaged populations?" (p. 16).

While not discounting the likelihood that rurality and remoteness hold some positive implications for health, from the perspective of the delivery of health services, the literature supports the assertion that residence in remote communities does in fact imply disadvantage

and marginalization. I propose that disadvantage and marginalization represent the practical and theoretical piece that Kulig et al. (2003) saw as lacking in their review of policy documents. The literature that addresses health and health service delivery in remote settings clearly implies that residents of remote communities experience both poorer health and inequities in access to health services, compared to Canadians living in other settings (Romanow, 2002). This is supported by health indicator data compiled by Statistics Canada (2003), based on census data and data from the Canadian Community Health Survey (CCHS).⁷ A further and often unstated implication of remoteness is that aboriginal people make up a large segment, if not the majority, of Canadians who live in remote communities (Statistics Canada, 2001).⁸ Thus, when health services researchers describe a community as remote, the often-unarticulated implication is that the residents of that community are (a) predominantly aboriginal, (b) have poorer health and (c) have access to fewer health resources in their community than do Canadians who live in non-remote communities (Caron, 2005).

⁷ An interesting paradox is noted in that the CCHS excluded residents of Indian reserves. Thus, these data include few if any of the primarily aboriginal communities that tend to be among the most remote communities in the northern provinces. However, aboriginal people living off reserve make up a significant proportion of the population of non-reserve northern communities. This group of aboriginal people was eligible to be included in the survey and presumably contributed proportionately. While these data substantiate that northern residents have poorer health on several parameters than do residents of Canada's southern regions, it is unclear from the CCHS data how this poorer health relates to aboriginal people. That is, it does not help to clarify whether the poor health of northern residents is more or less associated with being northern, versus being aboriginal, or with community size and remoteness (INAC, 1997), or some combination of these factors.

⁸ It is difficult to ascertain the exact percentages of aboriginal versus non-aboriginal residents in remote, northern regions, as the available census data are not organized in a way that makes this information obvious or easily accessible. Through a laborious method of searching the on-line demographic tables available on the Statistics Canada website for community profiles, then doing the mathematics myself, I determined that, for example, the population of the Burntwood Health Region, which represents a large part of northern Manitoba and includes remote aboriginal communities as well as the metro area of Thompson, is almost 73% aboriginal. The population of the Northwest Health region of BC (the northwest region of the province) is approximately 25% aboriginal, and the population of the Yukon Territory (excluding Whitehorse) is about 45% aboriginal. In Nunavut, almost 93% of rural / remote residents are aboriginal.

The first comprehensive investigation of the implications of rurality and remoteness for nursing practice in Canada was the *Nursing Practice in Rural and Remote Canada Study*, under the direction of co-principal investigators MacLeod, Kulig, Stewart, and Pitblado (2004). This large, multi-armed study provided the first in-depth exploration of nursing practice in rural and remote Canada. One arm of this study relied on analysis of demographic data available through the Registered Nurses Database [RNDB]; a second arm involved a large national survey (n = 3,933) of nurses employed in a variety of nursing roles and settings in rural and remote locations. The survey data were contextualized and enriched through analysis of qualitative data collected from nurses as part of a third arm of the study (n = 152). This study represented a foundational work in the field of research related to nursing practice in rural and remote settings and contributions that enrich the knowledge base related to rural and remote nursing are ongoing (e.g., Kulig, 2005; Stewart, D'Arcy, Pitblado, Forbes, et al., 2005; Stewart & McLeod, 2005).

The fourth arm of the MacLeod et al. (2004) study was the Kulig et al. (2003) policy analysis report previously referenced. This report represented a preliminary document that provided an insightful view of the implications of existing health policy documents on rural and remote nursing practice. The inclusion of detailed assessments of these implications from the perspectives of aboriginal health, the educational preparation of nurses, the evolving role of nurse practitioners, and health care delivery made this document of particular relevance to the present study. Kulig et al.'s discussion of remoteness specifically in relation to aboriginal communities was based largely on documents from Health Canada and Medical Services Branch (MSB) (later to become First Nations and Inuit Health Branch [FNIHB]). These authors noted that "One report implies that remoteness is related to accessibility, access to services, and support" (Health Canada, 1993, cited by Kulig et al., p. 127). They also drew

attention to a FNIHB classification system for designating communities according to degree of isolation and remoteness.⁹ Vukic and Keddy (2002) also referred to the FNIHB classification system, which rates aboriginal communities as non-isolated, semi-isolated, isolated or remote isolated, depending on access (i.e., road access versus air access, distance to physician services, and quality of telephone service), and the availability of health services within the community (i.e., a health centre where public health only is provided versus a Nursing Station where nurses provide primary and emergency care in addition to public health services). Notably, by the FNIHB definitions, few communities even in the far-flung reaches of the high arctic would be considered remote, isolated communities, since scheduled flights and good telephone service are now available in virtually all northern communities. For example, Igloolik, located two hours' flying time from Iqaluit, and a further three hour's flight from tertiary level services in Montreal or Ottawa, would not be considered a remote isolated community. However, the FNIHB classification system illustrates how access and resources to services are implied in the way a continuum of remoteness has been conceptualized.¹⁰

The Multistakeholder Index of Rurality (CMA et al., 2003) represented a joint effort of the Canadian Medical Association (CMA), the Canadian Nurses Association (CNA), the Society of Rural Physicians of Canada, and the Canadian Pharmacists Association. This method for indexing rurality was of interest to the present study primarily because it included parameters of rurality that were also relevant to remoteness, such as distance to a secondary

⁹ Interestingly, the FNIHB classification system is different from the definitions of geographical zones used by INAC, wherein a "remote zone" is defined as being more than 350 km from the nearest service centre having year-round road access, a "special access zone" is defined as having no year-round road access (i.e., a fly-in community), and a "service centre" is defined as a community having a variety of specified services available, including provincial health and community services (INAC, 2003).

¹⁰ This conceptualization begs the question of whether an isolated community is still considered to be isolated to the same degree on the intermittent days that a physician is on site?

referral centre, barriers to access, and available resources in the community. However, the index was premised on the assumption that communities were large enough to support a full-time physician practice; therefore, several parameters are specific to physician practice. The rurality index has no way to acknowledge the reality of health services in remote aboriginal communities that typically lack full-time physician services. Recognizing this shortcoming in respect to remote communities, the CMA et al. document recommended that research is needed to start looking at the differences between not only rural and remote communities, but also between rural, remote and aboriginal communities (p. 24).

While the recruitment and retention of health professionals in rural and remote areas was the focus of both the Kulig et al. (2003) report and the CMA et al. (2003) document, each of these documents was driven by recognition of the poor health status of rural and remote residents, and the assumption that improving access to health providers is one strategy to effect better health. The implication is evident that remote communities are associated with a less healthy population that is marginalized in terms of access to health services:

The poor health status of rural and remote populations compared with their urban counterparts, as well as the challenges they encounter in accessing health services, have been well researched. Unfortunately, these health inequities are exacerbated by the difficulties that rural and remote communities experience in retaining and recruiting health care providers. The need to address health care workforce issues is therefore a critical component in helping to ameliorate the health status of rural and remote populations. (CMA et al., p. 1)

Remoteness may also imply that remote communities have in some sense dropped through the cracks of broader society. They are remote in the sense of being remote from mainstream Canadian society. This assertion is particularly germane in the case of aboriginal communities. For example, aboriginal communities are not included in the same databases (i.e., the CCHS database); thus, it is easier to lose sight of their health status in comparison to

other Canadians. Neither (in the provinces) are they part of the same health care system, that is, the provincial systems. By virtue of being distant from the places where provincial health services are located, remote aboriginal communities have been forced to rely on a federal system that has developed, in theory, to meet their health care needs in the absence of available provincial health services. However, the distancing and isolation of remote aboriginal communities from mainstream society has to do more with the historical and socio-political context of aboriginal existence in Canada than with geographical location (Browne & Fiske, 2001).

The Historical and Socio-Political Context of Aboriginal Health and Health Services

In terms of health status indicators, numerous studies and official statistics consistently demonstrate a wide gap between Indian and non-Indian Canadians.... Concern is often expressed over the inadequate services provided by government agencies and the lack of accessibility of many Indians to the same quality of care enjoyed by the majority of Canadians. (Young, 1984, p. 257)

The poor health status of Canada's Aboriginal peoples is a well-known fact and a serious concern not only to Aboriginal peoples but also to all Canadians. The situation is simply unacceptable and must be addressed [In spite of] a number of initiatives underway in every province and territory, the fact remains that there are deep and continuing disparities between Aboriginal Canadians both in their overall health and in their ability to access health care services. (Romanow, 2002, p. 211)

These two passages conveyed the same message: aboriginal Canadians experience

poorer health and inequitable access to health services, compared to other Canadians (CIHI,

2004a; Caron, 2005). Significantly, these passages were written almost 20 years apart,

suggesting that in spite of recognition of the problems, little substantive progress has been

made over the last two decades in addressing aboriginal health issues. As Romanow (2002)

noted, some improvements in health status have in fact been achieved (CIHI), primarily

attributable to public health strategies such as improved housing (in some communities) and

disease prevention. However, the prevalence of chronic diseases such as diabetes (Green,

Blanchard, Young, & Griffith, 2003; Young et al., 2000) and heart disease (Shah et al., 2000), infectious disease such as hepatitis A (Jin & Martin, 2003) and tuberculosis (CIHI; INAC, 2003), as well as the incidence of suicide (Malchy, Enns, Young, & Cox, 1997) and traumatic death and disability (CIHI; INAC; Karmali et al., 2005; Young, 2003) continue to be significantly higher in the aboriginal population compared to the non-aboriginal Canadian population. These profound health disparities are further reflected in health status indicators such as infant mortality rates that remain a third higher than the national average (CIHI; INAC), and between 5.5 (women) and 8.1 (men) years' discrepancy in life expectancy between aboriginal and non-aboriginal Canadians (FNIHB, 2005). Significantly, these statistics are not simply neutral indicators of health and well being, but reflect the impact of social inequities and the social determinants of health on the health of aboriginal people.

An understanding and acknowledgment of the historical and socio-political context of aboriginal health is relevant to this research for three main reasons. First, understanding the phenomena of interest within its broader context supports a PHC orientation to the research and is consistent with the conceptual underpinnings of this study. Young (2003) pointed out that contextual factors such as geographic isolation and socio-economic status "are central to the aboriginal experience in many regions and removing them takes away the most powerful explanatory variable" (p. 121). Second, understanding the broader historical, socio-political and economic context of aboriginal health is key to understanding how the organization and structure of aboriginal health services have developed at the macro and meso-levels, and how and why these services differ from health services to non-aboriginal Canadians (O'Neil, 1986). Third, previous studies suggest that the historical and socio-political context of aboriginal health influences patient-provider interactions (e.g., Browne, 2005; Browne & Fiske, 2001; O'Neil, 1989; Vukic & Keddy, 2002); thus, the process of care, and potentially.

health outcomes (Browne & Fiske). A contextual understanding of the broader issues that influence aboriginal health and health services added depth to the present study by offering direction for data collection and facilitating a more insightful analysis of the data.

A few classic papers dating back to the early 1980's have formed the foundation of a growing body of literature that has effectively established that the poorer health of aboriginal people is linked to social inequities (O'Neil, 1986, 1989; Young, 1984; York, 1989), and that these inequities are the product of the historical social, political, and economic relationships between aboriginal people and (predominantly) European settlers. These are relationships that have been characterized as colonial in nature (Hackett, 2005). For example, in a synopsis of the key historic developments and government policies that have shaped aboriginal health services, Young stated, "the dominant philosophy can be described as benevolent paternalism" (p. 260). Young related this philosophy to the federal government policy of the time (i.e., dating from Confederation until the post World War II era), which was a policy of displacement and assimilation of aboriginal people (RCAP, 1996). Driven by this policy, health services to aboriginal people at the time were in reality little more than "benign neglect" (Young, p. 262).

Even following the institution of Medical Services Branch¹¹ in 1962 (Young, 1984), as a branch of the federal Department of National Health and Welfare¹² dedicated to providing health services to aboriginal people, aboriginal health services have continued to be characterized by colonial attitudes and paternalism (Gregory, 1992; O'Neil, 1986) and the belief that aboriginal people were wards of the state, incapable of controlling their own

¹¹ Renamed First Nations and Inuit Health Branch (FNIHB) in 2000.

¹² Later Health Canada.

health services. The locus of authority and responsibility, and thus, control over health services remained firmly in government hands (Lavoie, 2004; O'Neil).

The need to repatriate authority and control for health services was recognized in the late 1970's as a first step in rebuilding a system of health care that could better address the profound health issues that had become increasingly evident in the aboriginal population. The initial impetus for the eventual transfer of authority for health services back to aboriginal people came primarily from a new federal Indian Health Policy, implemented in 1979, and the Berger Royal Commission Report of 1980 (Vukic & Keddy, 2002; Young, 1984), which recommended consultation and participation of aboriginal groups in health care decisionmaking. Since then, health transfer has been a slowly-evolving ideal that proceeds despite some scepticism and the critique that it may represent an "attempt to off-load federal responsibilities for health care that may disadvantage communities as they inherit underfunded, medicalized systems of health care" (Browne & Fiske, 2001, p. 129). However, the gradual and responsible transfer of authority for health back to aboriginal groups is seen as the definitive strategy for eventually effecting improvements in aboriginal health status (Lemchuk-Favel & Jock, 2004). As of December 2004, health transfer agreements had permitted almost half (48%) of First Nations communities to assume greater responsibility and control over their health care resources (FNIHB, 2004).

A number of contemporary government reports have recognized the link between poorer aboriginal health and the social inequities that are the legacy of past government policies that have been racist and discriminatory (Romanow, 2002; RCAP, 1996; Seaton et al., 1991). The RCAP report has been the most definitive of these, clearly linking the present with the past: "Current social problems are in large part a legacy of historical policies of displacement and assimilation, and their resolution lies in recognizing the authority of

Aboriginal people to chart their own future" (vol. 3, Introduction). However, it is questionable to what extent other official federal and provincial government reports have acknowledged the link between poor health status and the broader socio-political context of aboriginal health, which is the cumulative result of over a century of oppressive government policy and which is now embedded into the fabric of Canadian society (Browne & Smye, 2002). For example, while Romanow observed that "young Aboriginals are more often exposed to problems such as alcohol abuse and drug addiction than other Canadians of the same age" (p. 218), he failed to clearly attribute the problem of widespread substance abuse to the socio-historical context, stating instead that due to such abuse "combined with [emphasis added] pervasive poverty, persistent racism, and a legacy of colonialism, Aboriginal peoples have been caught in a cycle that has been perpetuated across generations" (p. 218). This is a subtle difference in semantics that is nevertheless significant, in that it is indicative of the tendency to recognize the different pieces of the puzzle without accurately acknowledging how the pieces are linked together. Framing the issues in this way obscures how social problems such as substance abuse are in fact deeply rooted in the socio-historical context of poverty, racism and colonialism (Hackett, 2005).

Browne and Fiske (2001; also Browne & Smye, 2002) noted a similar issue in regard to health research, and in particular, epidemiological research that has inadvertently reinforced and perpetuated negative stereotypes of aboriginal people as passive, dependent and irresponsible, thereby "reinforcing unequal power relationships and justifying ongoing paternalism and dependency in health care" (p. 129). For example, attributing diabetes risk to factors such as genetic susceptibility, obesity or inactive lifestyle, or trauma risk to driving and alcohol use, negates the role of social determinants such as poverty, unemployment, or lack of access to resources (Caron, 2005), as well as the socio-historical context that may

potentially influence the development of risk factors such as alcohol use, obesity or inactivity. Moreover, the effects of the social determinants on health, (e.g., poverty), have often been treated as confounding effects to be "controlled for", rather than acknowledged as potentially critical explanatory variables (MacMillan et al., 1996; Young, 2003). Decontextualizing research findings in this way not only reinforces the negative images of aboriginal people that perpetuate the cycle of dependency, but also contributes to an attitude of victim-blaming (Bartlett, 2005; O'Neil, 1989), wherein individuals are seen as lacking the will – rather than the resources, to improve themselves.

There are several contemporary, comprehensive histories of the evolution of aboriginal health services from the perspective of nursing (e.g., Browne, 2003, 2005; Martin, 1997; Vukic, 1997), although notably, these tend to exist as the unpublished portion of master's and doctoral theses.¹³ For example, Martin presented a history of aboriginal health care from pre-contact (i.e., prior to 1670) to the present. This work included a description of common traditional health practices and illustrated how contact with colonizing influences changed both health practices and the health of aboriginal people. Martin drew attention to racism from a historic perspective, and to the insidious development of racializing discourses based in economic and political colonialism, and described how these discourses who provide health services in remote settings.

O'Neil (1989) studied physician and nurse-patient interactions in a remote Inuit setting and found that these interactions, which were mediated through an interpreter, were constrained by "political and ideological barriers inherent in a colonial medical system" (p.

¹³ Graduate theses and dissertations are now widely accessible through the National Library of Canada and National Archives of Canada electronic collection and thesis retrieval website: http://www.collectionscanada.ca/6/4/s4-240-e.html

325). He referred to the persistence of such colonial relationships as "internal colonialism" (O'Neil, 1986, p. 119), referring to the deliberate or incidental subjection of an indigenous population by a more powerful mainstream population. The constrained interactions described by O'Neil contributed to a loss of confidence in local health providers on the part of the local Inuit population, and subsequent confrontation and conflict between the Inuit community and local providers, as well as the larger health system structure (i.e., at that time, MSB). O'Neil's work offers a graphic illustration of how the socio-political history of colonialism continues to influence and shape contemporary health services delivery in aboriginal communities.

More recently, from the perspective of nursing practice in remote aboriginal communities, Vukic and Keddy (2002) found that the ability of nurses to develop trust with aboriginal clients was constrained by the "structural, administrative, historical, cultural and political contextual realities that have shaped northern community nursing" (p. 542). Similarly, Browne and Fiske (2001) found that "affirming encounters" (p. 139), or providerpatient interactions that were viewed as positive by First Nations women, were characterized by respect and trust. The lack of trust within provider-patient relationships has implications for health services delivery, nursing practice and patient health outcomes at both the aggregated, or community level (Vukic & Keddy), and at the individual level (Tarlier, 2004).

Contemporary nursing scholars have turned a critical lens on the structures and processes that typify interactions between nurses and aboriginal patients. Recent work, both published and unpublished, demonstrates how critical social perspectives have informed and added depth to our understanding of how the historical and socio-political context of the organization, structure and processes of health services to aboriginal people continue to be influenced by internal colonialism and racializing discourses. For example, feminist and

critical social theory informed a multiple case study of the nature of primary health care nurse practitioner work (Martin-Misener, 2000).¹⁴ Perspectives from critical medical anthropology and cultural safety informed Browne and Fiske's (2001) study of First Nations women's interpretations of provider-patient interactions. Vukic and Keddy's (2002) study examined the nature of outpost nursing work using an institutional ethnography that identified "disjuncture in the discourse of northern nursing" (p. 542), while another recently completed ethnography (Browne, 2003, 2005) relied on post-colonial, critical and feminist perspectives to analyze interactions between nurses and First Nations women patients in an acute care setting.

Previous research grounded in critical perspectives suggests that maintaining a broad contextual understanding of the structure and process of care is vital to an accurate interpretation that is meaningful from the perspective of the aboriginal people whose health is central to the aims of the present project. While this research did not take a specifically critical theoretical stance, it was nevertheless important to acknowledge that aboriginal health services take place within a historical socio-political context that has shaped, and continues to shape not only the traditional and emerging organization and structure of health services at the macro and meso-levels, but also the processes of health care at the meso and micro-level; that is, at the level of individual providers and patients.

Outpost Nursing Literature

Gregory (1988) noted the lack of literature, and particularly, of research-based literature related to outpost nursing in Canada. More recent writers have made the same observation (Chaytor 1994; McLeod, 1999; Tarlier et al., 2003), suggesting that outpost

¹⁴ While Martin-Misener's study did not focus specifically in the area of health services to remote aboriginal communities, most of the PHC nurse practitioners (n = 5) that took part in this study did in fact work in a remote aboriginal community, or in a rural or urban health center where aboriginal patients formed a significant part of the patient population.

nursing may be an under-recognized field of nursing practice. Much of the literature that does exist addresses organizational and structural issues as well as practice issues, suggesting that it is difficult to separate outpost nursing practice from the context in which it occurs.

While outpost nursing is unique to the Canadian context, both Australia and the U.S. have experienced a parallel development of similar nursing roles in rural and remote areas. For example, the Frontier Nursing Service in the Appalachian region of the U.S., and Remote Area Nursing in the Australian outback. These nursing roles each evolved to meet the health needs of under-served rural and remote populations, and they continue to face common issues and challenges in the present day. Shared themes include working with marginalized populations, lack of resources and supports, and identifying the role as an advanced nursing role (Bushy, 2002). Australia and Canada struggle with similar issues with regard to the historical socio-political context of aboriginal health, socio-economic inequities and the need to offer culturally relevant health services (Nel & Pashen, 2003; Wilson, 2001). Bushy noted a lack of literature about rural and remote nursing at the international level, as well as a need to identify "core nursing content" to support advanced rural / remote nursing practice (p. 109). Despite these similarities, the nursing role in each of the three countries has also been shaped by unique considerations, such as the national health services system, health care funding, political and economic ideologies, and the particular physical characteristics of each country (i.e., weather, geography). For example, early acceptance of the NP role in the U.S. led to the development of a recognized NP certificate program (now a graduate level NP degree program) as early as 1970, to prepare nurses for work with the Frontier Nursing Service (Frontier Nursing Service, 2002). Although an outpost nursing type of role exists in the U.S. and Australia, these roles are carried out within distinct social and health services

contexts that limit the usefulness of the American and Australian literature to the purposes of this study. Thus, this literature review focuses on outpost nursing in the Canadian context.

A common theme through most of the outpost nursing literature is that historically, there has been a notable lack of support and resources available to outpost nurses, and that this has influenced both the nursing role and practice (Gregory, 1992; MacLeod, 1999; Tarlier et al., 2003; Vukic & Keddy, 2002). For example, how outpost nurses learned to adapt to the context of practice emerged as a sub-theme in my previous research with outpost nurses (Tarlier et al.). While this section of the literature review has been divided into two main sections that address (a) organizational and structural issues, and (b) practice issues, it is with the recognition that in reality, no clear demarcation separates these two areas.

Organizational and Structural Issues

In previous studies, organizational and structural issues arising from the context and structure of nurses' work and living environments in remote aboriginal communities emerged as important influences on nurses' practice. These issues are discussed here in terms of four key themes that are drawn from the existing relevant literature: (a) isolation, (b) understanding the context of aboriginal health, (c) nursing turnover, and (d) worklife issues. The literature reviewed here offers an important background to the present work.

Isolation

One of the earlier published studies to look at outpost nursing specifically was Hodgson's (1982) anthropological research with outpost nurses in northern Manitoba. Hodgson identified how organizational and structural aspects of working and living in remote aboriginal communities contributed to role ambiguity and conflicting role expectations for the nurses in her study. Nursing practice expectations (i.e., advanced and expanded role and level of autonomy), social and living conditions (i.e., communal housing attached to the

Nursing Station), and living and working within an unfamiliar culture were all viewed by Hodgson as contributing to nurses being distanced from, and therefore isolated from the aboriginal community. These issues were experienced as a source of stress that in turn affected nurses' ability to form satisfactory interpersonal relationships within the aboriginal community, and thus also affected both their work lives and nursing practice. Hodgson discussed the effect of such isolation on nursing practice indirectly in terms of its negative influence on communication and building relationships with the aboriginal community.

Gregory's (1988, 1992) work has become a classic reference in the Canadian outpost nursing literature because it presents a clear, concise description and analysis of how the organization and structure of outpost nursing practice and health services delivery in remote aboriginal communities have been shaped by the broader socio-political historical context. Drawing on Hodgson's (1982) work, Gregory similarly discusses the key issues in terms of nursing role expectations, and living and working in isolation and within a different culture. Nurses in remote aboriginal communities tend to be isolated from not only the personal, professional and social supports they have left behind, but also from the aboriginal community itself. Most non-aboriginal nurses are unprepared for the degree of "culture shock" (Gregory, 1992, p. 188) they experience on taking up an outpost nursing position in a community that is unexpectedly foreign in terms of culture, language, socio-economic status, and often, the extent of social problems such as substance abuse and violence. More recently, nursing scholars have conceptualized the notion of nurses' isolation from the community as "being other" in the community (Tarlier, 2001; Vukic, 1997; Vukic & Keddy, 2002).

Interestingly, Martin's (1997) study compared quality of worklife issues as experienced by aboriginal versus non-aboriginal nurses. Differences between aboriginal and non-aboriginal nurses who participated in Martin's study were based largely on the

aboriginal nurses' being able to integrate into the community better. That is, they were less "other" than the non-aboriginal nurses because they understood the local language and culture, and were more readily accepted by patients and the community. Both aboriginal and non-aboriginal nurses perceived this as positively influencing patient care, in that aboriginal nurses were seen as being more effective. Partly as a result of this, the aboriginal nurses also tended to be more satisfied with their worklife.

Nurses often find themselves in highly charged political situations, wherein aboriginal community leaders perceive nurses as the representatives of an antagonistic federal bureaucracy: "Nurses unaware of political realities may face a significant power struggle in their interactions with community leaders" (Gregory, 1992, p. 190). Being in some sense held accountable for the actions of the larger bureaucracy is another way in which nurses experience being "other" and are distanced from the community.

The politicized nature of aboriginal relationships with the larger health services delivery organization may also create distance between nurses and their supervisors, as nurses are caught in the middle of a health services "tug o' war", trying to meet the sometimes conflicting demands of both their employing organization, and the patients to whom they owe a duty of care. The socio-historical development of health services to aboriginal people has resulted in services being administered externally and at arm's-length from the communities (O'Neil, 1986). Paradoxically, as politicians and bureaucrats at higher levels of government have become acutely sensitive to aboriginal leaders' concerns, nurses have become increasingly vulnerable; often taking the brunt of a conflictive situation that may have developed historically between their employer and the local community (Gregory, 1992). For example, nurses are vulnerable to "being BCR'ed", which refers to the ability of local Chief and Council to pass a Band Council Resolution requiring the immediate removal

of a particular nurse from the community. Because Band administrators, such as chiefs and mayors "have direct access to powerful individuals in the departments of Indian Affairs and Health and Welfare" (Gregory, p. 190), a BCR is rarely questioned at the local or regional supervisory level. To illustrate, a nurse following FNIHB's policy regarding the number of Tylenol 3's that may be legally dispensed from the nursing station pharmacy may face being BCR'ed if a dissatisfied patient lodges a complaint with the Band administration. Thus, the phenomena of BCR reflects the larger socio-political context that has led to political strife between communities and federal agencies at the macro and meso levels, but which also influences nursing practice and patient care at the micro-level, as nurses sometimes find themselves walking a fine line between balancing employer expectations (and standards of practice) with community expectations, where failure may mean loss of position and expulsion from the community.¹⁵

Vukic (1997; Vukic & Keddy, 2002) found that nurses' status as other in the community effected their ability to build trusting relationships in practice. Trust was viewed as fundamental to being able to work effectively with the community (Vukic & Keddy, p. 542). Vukic and Keddy linked difficulties in building trust to the broader socio-political context: "the difficulty in part stems from the constraining, structural, administrative, historical, cultural and political realities that have shaped northern community nursing" (p. 542).

The finding that experienced outpost nurses developed skill in building trusting relationships and viewed it as essential to their ability to influence patient health outcomes was similarly reflected in the findings of my own previous research with outpost nurses

¹⁵ The power to pass a BCR also has a positive side, in that it gives aboriginal communities a powerful option for dealing with nursing station administration or nurses that have proved unresponsive to community concerns. The purpose in discussing BCR in this paper is to present the risk of being BCR'ed as a factor that may potentially influence nurses' practice and interactions with patients.

(Tarlier et al., 2003). This finding was one of four themes to emerge from the data of an interpretive study describing the role and practice of experienced outpost nurses. This study was also a master's research project (Tarlier, 2001) and therefore somewhat limited in scope. Nine experienced outpost nurses participated by sharing practice narratives, which were interpreted in accordance with Benner's model of interpretive phenomenology (Benner, 1994). The other three themes that emerged from the interpretation of findings in this previous work were: (a) nurses evolved into the outpost nursing role by learning to adapt to the context and by developing an understanding of primary health care; (b) experienced outpost nurses became comfortable with the autonomy and responsibility of outpost practice, which is related to the advanced and expanded expectations of the primary care nursing role (i.e., as defined by the FNIHB nursing scope of practice, reviewed in the following section that addresses nursing practice issues); and (c) experienced outpost nurses perceived competency in primary care as fundamental to outpost nursing practice. Notably, the present study built on and extended this previous research.

Understanding the context of aboriginal health

Martin (1997) briefly addressed the consequences of outpost nurses failing to examine their practice within an understanding of its historical and socio-political context. Identified consequences included having a limited perspective on aboriginal health care issues, failing to address the source of problems that nurses perceived to effect their practice, and failing to understand the broader picture of health that implied a need for community development approaches. Martin's findings in relation to both the ethnocentrism of nonaboriginal nurses and the failure of non-aboriginal nurses to examine their practice from a broad historical and socio-political perspective are consistent with a recent doctoral study conducted by Browne (2003, 2005).

Browne (2003, 2005) used ethnographic methods informed by standpoint theory (Smith, 1987, 1992, as cited in Browne, 2003) and post-colonial and feminist perspectives to explore the socio-political and historical context of clinical encounters between First Nations women and nurses in an acute care setting. Browne found that "in the absence of competing frames of reference, embedded assumptions about Aboriginal peoples, culture and 'difference' influence the relational aspects of nurses' work with First Nations women" (2003, p. ii). Racializing discourses, reflecting embedded societal discourses and assumptions, created and perpetuated a process of social distancing between nurses and First Nations patients that in this predominantly non-aboriginal work setting contributed to othering practices directed at First Nations women. While Browne's study did not examine nursing practice or outcomes of practice per se, her observations suggested that embedded racism and insidious discriminatory practices exerted a negative influence on communications and relationships between the acute care nurses and the First Nations women patients who participated in her study.

Nursing turnover

Several of the papers already presented in this review have referred to or have implied nurse turnover, or transience in staffing as an important issue that effects outpost nursing practice (Gregory, 1992; Martin & Gregory, 1996; Minore et al., 2002, 2005; Vukic & Keddy, 2002). Nurse turnover has long been a critical health services issue in remote aboriginal communities (Morewood-Northrop, 1994) and is related to many of the organizational and structural issues already delineated; for example, isolation, culture shock, powerlessness, unpleasant living conditions, living in fear, lack of resources, lack of support from and trust in the nursing supervisory structure, and inadequate preparation to meet the expectations of an expanded scope of practice. Martin and Gregory discussed nurse turnover

in terms of increased workload and ultimately, nurse fatigue. Excessive workloads and fatigue contribute to the "burnout" and rapid turnover of outpost nurses that is typical of many communities (Kulig et al., 2003; Vukic & Keddy), and also to the difficulty in recruiting and retaining adequately qualified nursing personnel.

The Sioux Lookout region in northern Ontario recently commissioned a study to explore non-outpost nurses' perceptions of outpost nursing practice (Boone et al., 2000), as a recruitment and retention strategy. While this study sampled nurses (n = 237) who had not necessarily experienced outpost nursing work first hand, study findings supported all of the organizational and structural issues already identified in the literature as being important to nurses' decision to pursue or not pursue outpost nursing. Minore et al. (2002, 2005) identified nurse turnover and workforce instability as a potential factor contributing to lack of continuity of care and poor patient health outcomes in remote First Nations communities. Although organizational and structural issues may explain a large part of the high rate of nurse turnover in remote communities, the literature also supports the possibility that nursing practice issues equally influence high turnover rates (Morewood-Northrup, 1994).

Worklife issues

Martin and Gregory (1996) presented preliminary findings from Martin's (1997) master's thesis research, which was an ethnographic study of quality of worklife issues of outpost nurses in northern Manitoba. Worklife issues were defined in terms of four categories: (a) the interplay of home and work life, (b) the nature of nursing work, (c) the nature of the work environment, and (d) the larger health care system. The theoretical framework (O'Brien-Pallas & Baumann, 1992, as cited by Martin & Gregory) that guided Martin's study postulated that aspects of nursing worklife influenced both nurses and their practice with patients. Having been conducted as a master's thesis, the scope of the study was

small, being based on a total of 10 days' fieldwork in four different remote aboriginal communities, and interviews with 11 outpost nurses (n = 5 aboriginal and 6 non-aboriginal nurses)

Consistent with Hodgson's (1982) research, the findings of Martin's (1997) study suggested that outpost nursing "was inundated with contradictions and conflicts" (p. 241). Quality of worklife issues perceived by both aboriginal and non-aboriginal nurses to negatively influence patient care were nurse fatigue (i.e., in response to excessive hours worked, on-call hours worked, and lack of sleep secondary to being on-call at night), lack of resources (e.g., understaffing, mental health resources), and conflicts with physicians (i.e., physicians at a distance who provided telephone referral / consultation services but who did not visit the community and thus had no particular on-going relationship to the nurses or the patients). The quality of worklife issues described by Martin are not unique to nursing practice; these issues may also affect the quality of worklife of other health professionals (e.g., physicians) who practice in rural, remote or under-serviced areas. A key difference is that in remote outpost settings, nurses take on responsibilities that are more usually associated with physician practice, for which nurses are sometimes inadequately prepared (Minore et al., 2002), and that are not generally considered usual nursing practice in other settings.

Minore et al. (2002) found that nurses' relationships with distant physicians exerted a negative influence on inter-professional communication and access to health services. As Gregory (1992) had previously observed, the politicized environment was also perceived to exert a negative influence over nurses' practice. Martin (1997) characterized the political influence over various aspects of nurse's worklife as powerlessness:

Politics was a key factor influencing nurses' relationships with clients, NICs [nurses in charge], ZNOs [zone nursing officers] and particularly the Band Chief and Council. Many nurses felt powerless, given the Band Chief and Council's perceived influence over their work. Several participants identified that political structures and processes impeded their roles as nurses. (p. 231)

Other factors embedded within the larger organization and structure of the health services delivery system were identified as nurses' lack of support from and trust in ZNOs (i.e., the immediate supervisors of nurses in the field), isolation, and living conditions. Moreover, Martin's (1997) study revealed outpost nurses were sometimes "living in fear" (p. 229) in regard to their personal safety both in the workplace and when out in the community. Nursing Stations riddled with bullet holes and elaborate (if often ineffective) security alarm systems attest to the fact that in some communities, the Nursing Station is seen as a tangible symbol of oppressive colonial authority. Nurses have at times been caught in the crossfire (occasionally quite literally) that is the result of the socio-political legacy of aboriginal relations with federal governmental authority (Hackett, 2005). Nurses are also placed at risk as the front-line providers of health services to patients with the type of mental health and substance abuse problems that are largely secondary to the socio-economic inequities that have shaped contemporary aboriginal health issues. In some communities, nurses still work on-call alone at night and without the benefit of support, such as a reliable local policing presence.¹⁶ This, along with the social distancing and the isolation of nurses in some communities, makes nurses a vulnerable target within the community. Notably, this is the exception rather than the rule; my personal clinical experience suggests that, as in other parts of the world, the communities where nurses are most at risk are often the communities most plagued by socio-economic inequities, that is, the most impoverished communities.

¹⁶ FNIHB-operated Nursing Stations in Manitoba now have security guards on site during the night; however, this is not the case in all provinces or territories, where nurses commonly continue to work alone when on-call.

Vukic (1997; Vukic & Keddy, 2002) conducted an institutional ethnography to explore the social organization of outpost nurses' work. Vukic's study was informed by Smith's standpoint theory (Smith, 1987, as cited in Vukic & Keddy). In the review of outpost nursing literature that supported her study, Vukic (1996; Vukic & Keddy) identified five themes that were relevant to the social organization of outpost nursing work: (a) the expanded role of outpost nurses, (b) the cultural context of practice, (c) the context of northern health care, (d) the changing role of outpost nurses (i.e., an increasing emphasis on PHC) and (e) quality of worklife issues. Vukic isolated two further variables from the available body of outpost nursing research literature that pertained to the quality of worklife: professional isolation and a lack of adequate educational preparation of outpost nurses.

The findings of Vukic's (1997; Vukic & Keddy, 2002) research included identifying factors arising from the organization and structure of outpost nursing work that influenced nurse's practice. Vukic discussed her findings in terms of documentation practices and the nurse as other in the community (Vukic & Keddy). Documentation practices imposed on nurses by the organization within which they worked were viewed as shaping nursing practice. "The documents organize, regulate, and manage what work should be done, thus enforcing compliance in doing and recording what was done" (p. 545). Examples of types of documentation included the nurses' daily patient logs, the month-end report, and the unit work plan. Although the nurses in Vukic's study expended considerable effort towards meeting the requirements of the documentation expected of them, she found that the documents failed to "reflect the complexity of the decision-making process" (p. 545) that nurses engaged in as part of their daily practice. Moreover, while documentation regarding other less task-like aspects of nursing perpetuated the invisibility and therefore the

insignificance of such other aspects of work that nurses' considered important to their practice. For example, nurses' work in building trusting relationships with patients and within the community went undocumented and thus remained largely invisible and unvalued.

Martin (1997) similarly identified several factors related to both nurses and patients that negatively influenced nurses' practice. Patient factors included demands on nurses that were sometimes perceived as unreasonable and unrealistic, over-dependence on the health system, failure to take responsibility for health at the community level, and valuing acute care services at the expense of community health programs. Nurse factors included inadequate educational preparation, inexperience in nursing generally and in the outpost nursing role, and attitudes and values. For example, Martin found the non-aboriginal nurses who participated in her study exhibited ethnocentric attitudes and values: "They expressed and demonstrated a superior value for their own cultural beliefs, attitudes and norms" (p. 258).

In my previous study of outpost nursing (Tarlier et al., 2003), nurses' evolution into the outpost nursing role was related to the contextual, organizational and structural factors that influenced outpost practice. Two sub-themes suggested that: (a) nurses adapted to the context of practice (i.e., adapted to the culture, isolation, and lifestyle), and (b) nurses shifted to a primary health care orientation to practice as they gained experience in the role and developed a "big picture" understanding of the role played by the social determinants of health. That is, while experienced outpost nurses regarded primary care competencies as essential to practice, at the same time, they understood that primary care by itself represented little more than a "band-aid solution". Comprehensive community-based health prevention and promotion, as well as community development strategies were required to address the root causes of poor health in the communities in which nurses practiced.

Nursing Practice Issues

The outpost nursing literature suggests that outpost nursing is an advanced community-based nursing role that requires advanced nursing knowledge and skills as well as specific knowledge and skills in primary care. This combination of advanced and expanded nursing competencies is most often described in the literature as a nurse practitioner (NP) role. Gregory (1992) saw there was a "substantial need for nurses who possess nurse practitioner skills" (p. 196) to provide health services in remote aboriginal communities. MacLeod, Browne, and Leipert (1998) suggested that the ability to practice in an advanced community health nursing role in addition to offering primary care services was a potential benefit of employing advanced practice NPs in rural and remote settings. In view of research findings suggesting that outpost nurses offer primary care services but sometimes at the expense of community health care (Martin, 1997; Minore et al. 2002; Vukic & Keddy, 2002), employing advanced practice NPs in outpost settings may represent a significant potential benefit.

In concluding their comprehensive analysis of policy documents pertaining to nursing practice in rural and remote settings in Canada, Kulig et al. (2003) recommended the implementation of national initiatives to support and promote the recognition, regulation and integration of advanced NP roles in health services to rural and remote communities. NPs able to work to a "full scope of practice" (p. 66) were viewed as having the requisite knowledge and skills to address health service delivery issues in rural and remote areas.

A common finding in the outpost nursing literature is that outpost nurses have in fact historically been identified as nurse practitioners. In interviews with graduates of the Dalhousie Outpost and Community Health Nursing diploma program, Chaytor (1994) found that this group of outpost nurses believed themselves to be functioning in a NP role. Martin-

Misener, Vukic, and May¹⁷ (1999) viewed the outpost nursing role as similar to that of a primary health care NP but differentiated the two roles on three points: (a) outpost nurses were responsible for initial management of emergency situations in settings where there were no supportive back-up services (i.e., physicians), (b) the outpost nursing role encompassed responsibilities in community health and community development, and (c) outpost nurses practiced within specifically aboriginal cultures and thus immersion in aboriginal culture was implied. However, despite differentiating the NP and outpost nursing roles, the tendency to identify the outpost nurse as a NP has persisted. Martin-Misener (2000) stated,

... the federal and territorial governments have resisted calling nurses who practice in remote nursing stations or health centers primary health care nurse practitioners.... However, the nursing community at large perceives the role of nurses who practice in remote nursing stations to be a nurse practitioner role, as do the nurses themselves. (p. 15)

For example, in a study of clinical outcomes in a remote aboriginal community, Knopp (2001) identified the outpost nurses in her sample as NPs, despite the NP title not being recognized at that time by the local provincial nursing regulatory authority. The CNA *Position Statement on the Nurse Practitioner* (2003) also recognizes NP practice in nursing outposts: "NPs practice in a variety of community, acute care and long-term care settings. These include... nursing outposts..." (p. 1).

In my previous research with outpost nurses, study findings suggested that the experienced outpost nurses who participated in my study shared domains and competencies of practice with American NPs (Tarlier et al., 2003). I adapted the framework of domains and competencies of NP practice developed by Brykcznski (1989) to reflect additional competencies specific to outpost nursing practice that had emerged from my research data.

¹⁷ All were long-time faculty with the Dalhousie Outpost and Community Health Nursing program, Dalhousie University. Ruth May originally established the program at Dalhousie University in 1967 (Chaytor, 1994) and continued to teach in the program following her official retirement in the mid 1990's.

The resulting framework of outpost nursing competencies reflected the core knowledge and skills required to support the complex, multi-dimensional work of outpost nurses in both primary care and community health (Tarlier, 2001, p. 104-5; Tarlier et al., 2003).

Brykcznski's (1989) original framework of domains and competencies of NP practice formed the basis of the National Organization of Nurse Practitioner Faculties (NONPF) *Nurse Practitioner Primary Care Competencies*, the most influential set of NP competencies in the U.S. (Price et al., 1992). These "core competencies are a gold standard" (NONPF, 2002, p. 5) for nurse practitioner education, practice, and credentialing, both in the U.S. and internationally. For example, the NONPF NP competencies were used to guide curriculum development of the Family Nurse Practitioner Master's of Science in Nursing graduate degree program at the University of British Columbia (UBC) (UBC School of Nursing, May, 2003). Thus, the finding that experienced outpost nurses share domains and competencies of practice with NPs, as explicated by the NONPF NP competencies, supports the assertion found in the literature that the outpost nursing role is similar to the NP role.

Outpost nurses employed by FNIHB are not required to meet the NONPF NP competencies. Instead, FNIHB has developed their own clinical competencies as well as clinical practice guidelines for nursing practice in remote aboriginal communities. FNIHB recently revised and updated the guidelines (Health Canada, 2000c, 2001a) and also added a competency self-assessment tool for nurses (Health Canada, 2001c, 2001d). The FNIHB clinical guidelines and the competency self-assessment tool are based on the original MSB scope of practice document (Health Canada, 1994) that "establishe[d] the basic parameters for nursing practice" (p. 1) in Nursing Stations. The scope of practice document explicated specific "duties", responsibilities, skills and tasks expected for basic Nursing Station practice, and provided recognition that many of these responsibilities and skills were beyond the

accepted scope of nursing practice in other settings. Thus, the document supported in a "legal" sense the practice of MSB (and later FNIHB)-employed nurses beyond what provincial nursing regulatory bodies supported. For example, the advanced and expanded scope of practice of nurses working in Nursing Station settings included conducting a history and physical examination of a patient "in order to establish a working diagnosis" (p. 8), "initiating... medical intervention... [and] drug therapy... according to predetermined protocols" (p. 9), and independently carrying out procedures such as suturing, venipuncture and diagnostic testing (e.g., blood specimens, radiographic studies). The "predetermined protocols" referred to are the *Clinical Practice Guidelines*. Nurses' prescriptive and dispensing authority was further guided by the *Nurses' Drug Classification System*, a drug formulary specific to nurses' practice in federally operated Nursing Stations.¹⁸ The scope of practice document also explicated specific public / community health nursing responsibilities, such as communicable disease control, maternal-child and reproductive health.

Notably, the competencies and guidelines developed by FNIHB continue to represent the accepted standard of practice (informally in practice, if not also formally acknowledged) in outpost settings in the Yukon, the Northwest Territories, Nunavut, and transferred health authorities as well as those that continue to operate under direct FNIHB authority. The FNIHB competencies are not identified as or compared to NP competencies; as Martin-Misener (2000) observed, the federal and (until recently) territorial governments have resisted identifying outpost nurses as NPs. However, with the development of a national NP competency framework (CNA, 2005a) and implementation in November 2005 of the

¹⁸ The Nurses' Drug Classification System has been integrated into the latest version of the FNIHB Clinical Practice Guidelines (Health Canada, 2000c). The FNIHB drug formulary is now Pharmacy Standards of Practice for First Nations and Inuit Health Branch Health Facilities (Health Canada, 2001b).

Canadian Nurse Practitioner Examination [CNPE] (CNA, 2005b), a mechanism now exists for assessing and recognizing outpost nurses who are able to demonstrate NP competencies through the examination process.

The use of competencies and clinical practice guidelines is increasingly promoted in nursing and medical practice generally, in the expectation that their use contributes to better continuity of care (Biem et al., 2003) and patient outcomes. However, problems with implementing guidelines have been identified. Biem et al. cautioned that guidelines may be "of varying quality" (p. 5), and also noted that guidelines are not sufficient when health providers lack other resources, as is often the case in rural and remote settings. Similarly, Vukic and Keddy (2002) remarked that

These guidelines can be significantly problematic as the assumption, when referring to these guidelines, is that the nurse has identified the appropriate 'medical' diagnosis when treating patients. These guidelines can be the major source for prescribed practice if nurses are not adequately prepared. (p. 546)

Thus, Vukic and Keddy implied that an adequate base of core knowledge is required to safely implement practice guidelines. Despite the availability of clinical practice guidelines, the outpost nurses in Vukic's (1997) study found that the level of educational preparation most often provided to outpost nurses was inadequate (i.e., short courses of three to six months' length).

The lack of adequate educational preparation to support safe outpost nursing practice was a major theme identified by Vukic and Keddy (2002) in the outpost nursing literature. Based on Vukic's research, these authors concluded, "nurses want tools, knowledge, skills, and organizational support to reflect the broad base of knowledge needed to carry out activities in the areas identified as outpost nursing work" (p. 547). Romanow (2002) also noted the need to adequately prepare health providers to better meet the health needs of

aboriginal communities. But significantly, the need for nurses to have additional educational preparation for the work they were expected to do in remote communities was recognized as long ago as 1964, *more than 40 years ago*. The Dalhousie Outpost and Community Health Nursing Program that operated from 1967 – 1997, for the specific purpose of preparing nurses for northern and remote practice in aboriginal communities across Canada, was established in response to the Hall *Royal Commission on Health Services* (Hall, 1964, cited in Martin-Misener et al., 1999).

Despite early recognition that nurses providing primary care services in remote communities needed additional educational preparation, and the establishment of a handful of programs, such as the Dalhousie program, to provide such education, a 2001 paper by Silverman, Goodine, Ladouceur, and Ouinn suggested that nurses working in remote aboriginal communities perceived a need for "continuing education" related to basic primary care clinical competencies, such as physical assessment and perinatal health. The Silverman et al. paper described a survey of FNIHB-employed nurses (n = 369) wherein nurses were asked to identify their continuing education needs. Employer's expectations of nurses' practice competencies were not discussed (e.g., as delineated by the FNIHB Competency Assessment Tools, Health Canada 2001c, 2001d). Survey respondents also identified emergency, acute care, gynecological and obstetrical skills as "critical" (p. 43) areas for continuing education. Interestingly, while respondents identified "victims of violence, noncompliant clients, substance abuse, fetal alcohol syndrome" as areas where continuing education was needed, there was no indication that nurses or the researchers related issues such as these to the socio-political context of aboriginal health, nor did either group identify knowledge related to aboriginal health or cultural issues, community health or community development skills as areas for continuing education.

What constitutes adequate educational preparation for outpost nurses? While the type of educational preparation adequate to prepare nurses for a NP role has long been a point of controversy in Canada (Tarlier, 2001), there is little evidence in the literature of discussion regarding adequate education to prepare nurses for outpost nursing practice. Most research involving outpost nurses has confirmed that the majority of outpost nurses are educated at the diploma or baccalaureate level, and may or may not have additional preparation in the form of a short (three to six month) course in primary care skills (Knopp, 2001; Martin, 1997; Silverman et al., 2001; Stewart & MacLeod, 2005; Tarlier et al., 2003; Vukic & Keddy, 2002). This has been in contrast with the trend in the U.S. towards graduate level education for NPs. Moreover, while NP education in Canada remains fragmented across the various jurisdictions that currently recognize and regulate NP practice, at the national level the trend is towards identifying NPs as advanced practice nurses requiring graduate level education (CNA, 2003).

From a historical and socio-political perspective, development of the NP role in Canada may be viewed as being an evolutionary process. Notably, this process in Canada follows the pattern of NP role development over the past 30 years in the U.S. (Price et al., 1992; Ray & Hardin, 1995), and is also similar to contemporary events in the U.K. (Carnwell & Daly, 2003). For the foreseeable future, NPs in Canada will likely continue to be recognized with a variety of combinations of education and experience through which they have developed the requisite NP core knowledge and competencies (CNA, 2003). Thus, in considering outpost nursing competencies, it may be more productive to look at core knowledge and competencies required for the role rather than at educational preparation per se. This is consistent with Minore et al.'s (2002) call for health services research to evaluate the core knowledge required by health providers in remote aboriginal communities.

There is general agreement among Canadian nurses who see themselves as practicing at an advanced practice level in remote settings that some preparation beyond basic nursing education (i.e., at the diploma or baccalaureate level) is required to support advanced nursing practice (Kulig, 2005; Schreiber et al., 2003). As more evaluative research of nursing practice is carried out, there is also increasing recognition that nurses with a higher level of educational preparation may influence more positive health outcomes (Aiken, Clarke, Cheung, Sloane, & Silber, 2003). Scholars in the area of remote and outpost nursing practice have identified that the preparation of outpost nurses is inadequate (Minore et al., 2002, 2005; Vukic & Keddy, 2002). For example, Stewart and MacLeod (2005) found that only 40% of nurses who identified themselves as practicing in NP positions in rural and remote settings had advanced practice nursing preparation. There is a need for evaluative studies of health services in remote aboriginal communities to substantiate the need for additional educational preparation for nurses and to suggest what core knowledge is required by nurses and other health providers (Minore et al., 2002; Tarlier et al., 2003).

Literature Relevant to the Evaluation of Primary Care

A guiding principle of health services delivery is that health strategies should be focused on health outcomes (Romanow, 2002). This principle is equally applicable whether health services are delivered in remote aboriginal communities or to mainstream urban populations. However, there is an alarming deficit of clinically based health outcomes research in remote aboriginal communities. Only two studies were identified that addressed the delivery of primary care in remote aboriginal communities from a broad clinical perspective. One of these studies was the case study of continuity of care conducted by Minore et al. (2002, 2005). The other study compared primary care practice patterns of NPs and physicians in a remote aboriginal community (Knopp, 2001). Since there is so little

literature related to primary care services delivered by outpost nurses, and none that addresses patient clinical health outcomes per se, a brief overview of the body of research pertaining to the outcomes of primary care NP practice is offered, on the premise that outpost nursing has been identified as a nurse practitioner type role. As well, a summary of the literature pertaining to the Burlington Randomized Controlled Trial (BRCT) of nurse practitioners (Spitzer et al., 1974) is provided, as both the original study and subsequent studies that further tested the methods and tools of the BRCT are of particular relevance to this research.

The Burlington Randomized Trial: Appraising Quality of Primary Care

The Burlington Randomized Trial of the Nurse Practitioner (Spitzer et al., 1974), one of the earliest large clinical trials of NP practice, was a Canadian study that remains a landmark in the contemporary NP literature. The BRCT randomized 1,598 families (n = 1,598) to physician (conventional; n = 1,058) or NP (experimental; n = 540) practice. The physicians and NPs worked in a collaborative practice. Families were chosen as the unit of randomization "because many clinical problems in primary care involve an entire family" (p. 252). Patients were followed for one year. Pre and post trial data were collected on patient health status, clinician activities and practice activities. Measured outcomes included mortality, and clinical effectiveness and safety, evaluated using criteria developed to reference selected specific indicator conditions. The BRCT concluded that NPs were capable of providing "first-contact primary clinical care as safely and effectively, with as much satisfaction to patients, as a family physician" (p. 255).

The indicator conditions and chart data abstraction tools developed for use in the BRCT formed the basis of the data abstraction process that was used in the present study. Indicator conditions refer to health states, diseases or a constellation of presenting symptoms,

and are selected on the basis that (a) management or treatment of the condition may influence the outcome, and (b) the condition occurs frequently enough in primary care settings to provide adequate data for analysis (Sibley et al., 1975). The development of indicator conditions was an attempt to adapt the tracer disease concept (Kessner, Kalk, & Singer, 1973, as cited in Sibley et al.) to quality of care evaluation in primary care practice. Ten indicator conditions were identified for the original BRCT study; an additional 11 conditions were identified in subsequent similar studies by the same group of researchers (Sibley, 1976).

Explicit criteria for the management of each condition were developed based on the available empirical evidence and through a process of consultation with a Peer Advisory Group. This group was composed of three family physicians in clinical practice rather than academia, to ensure that criteria reflected community standards of adequacy in primary care rather than academic standards, in keeping with the stated purpose of the BRCT. Physicians in the Peer Advisory Group were highly regarded by both their clinical and academic peers (Sibley et al., 1975). Criteria for each indicator condition included drug management, referral decisions and monitoring and follow-up of patients. Evaluation of the referral process was included "as a supplementary measure of quality" of care (p. 46).

Chart data were abstracted on the basis of episodes of care, which Sibley et al. (1975) defined as "all encounters for the management of an indicator condition" (p. 48). For example, an episode of otitis media might include several patient-provider encounters between initial diagnosis of the condition and its eventual resolution. There was an underlying assumption that a single practitioner was primarily responsible for the management of an episode of care. Both the first and last encounters of an episode had to fall within the time frame of the defined study period for an episode to be eligible for inclusion in the study. Criteria defining an episode of care specific to each indicator condition were
developed (e.g., to be eligible for inclusion in the sample of the indicator condition "Care of the Newborn", a child's first visit for well-child care at the clinic had to occur within the study period).

Initial pilot testing of the data abstraction tools developed for the BRCT demonstrated high inter-rater agreement on scoring, ranging between 88-94% (Sibley et al., 1975). The researchers also claimed good internal consistency between the abstracted data scores and scores obtained through the three different approaches used (i.e., indicator condition management, drug management and opinion of consultants). The results were also consistent with the outcome measures of the BRCT, that is, mortality, and physical, social and emotional well-being, as evaluated by various measurement strategies described by Sackett et al. (1974).

The original group of researchers subsequently used the indicator conditions and tools developed for the BRCT in further studies of quality of care in primary care practices. The ten indicator conditions developed initially were used to evaluate the quality of care in an additional 15 practices, including practices in rural settings. The 11 new indicator conditions were used to evaluate another 13 primary care practices (Sibley, 1976). The method of quality of care appraisal developed for the BRCT was further used in two primary care studies conducted in B.C., which are presented here briefly.

Robertson (1984) used seven of the original BRCT indicator conditions to evaluate the quality of care at an urban Vancouver primary care clinic that similarly to the BRCT study sites, employed NP/physician teams. Notably, this master's thesis research did not compare the practice of NPs and physicians but appraised overall adequacy of care by all providers. The indicator conditions selected for use in the Robertson study were based on a list of conditions most frequently seen at the study site (i.e., otitis media, hypertension,

prenatal care, depression, urinary tract infections, childhood immunizations, and care of the newborn in the first year). The clinic's medical director reviewed criteria for each of the selected indicator conditions to ensure they reflected current accepted practice standards (Sheps & Robertson, 1984). Robertson conducted a pilot study of 32 charts to assess reliability of the data abstraction process and found an overall agreement of 81%. A second reliability study demonstrated overall agreement of 85%. A retrospective chart review over the one-year period prior to the study was carried out. The unit of analysis was defined as an episode of care (n = 103). Results were compared with the results of the BRCT and no significant differences were found in adequacy of care. Identified limitations of the method included (a) indicator conditions allowed only a "sample of care given" (Sheps & Robertson, p. 885), thus limiting the generalizability of results to other health conditions, (b) the criteria focused on technical aspects of care and neglected psychosocial aspects of care, and (c) exclusive reliance on chart data, which may be an incomplete source. Robertson also observed that if the relationship between quality of care and outcomes were better established, it would be possible to use the BRCT criteria to assess quality of care in the absence of data regarding outcomes. Overall however, Sheps and Robertson found the BRCT indicator conditions and data abstraction tools to be a useful method to assess the adequacy of care in a primary care setting, and stated the criteria were "practical to use, clinically relevant and unambiguous" (p. 886).

The BRCT indicator conditions criteria and data abstraction tools were also used for an evaluation of prenatal care provided to low-risk women by nurse midwives (n = 44) compared to family physicians (n = 88) (Buhler, Glick, & Sheps, 1988). Using a peer advisory process, the criteria and data abstraction tools were updated and revised to reflect the current standards of prenatal care. Interrater reliability in this study was 95%, intrarater

reliability was 96%, and overall agreement in chart scoring was 95%. Overall, the BRCT method of using indicator conditions and chart data abstraction tools has proved practical and adaptable to assessing the quality of care in a variety of primary care settings, and has demonstrated acceptable validity and reliability.

Appraising Nurse Practitioner Practice

A vast amount of research has accumulated over the 30 years since the BRCT to further substantiate the safety, efficacy and effectiveness of nurse practitioners in primary care. In 1992, Dr. Loretta Ford, a co-founder of the first NP program in the U.S., observed, "No professional role has been more thoroughly discussed, described, studied and reported than that of the nurse practitioner" (Ford, 1992, p. 289). As Price et al. (1992) noted, "the literature is now fairly replete" (p. 11) in terms of describing the NP role from a variety of perspectives, including competency and the processes of care delivery by NPs, cost effectiveness, and patient satisfaction. The wealth of research addressing the NP role has been critically synthesized and summarized in three key projects, which are briefly presented here.

Feldman, Ventura, and Crosby (1987) provided a systematic review of the early NP literature. From an initial reading of nearly 1,000 documents, 350 were found to be relevant to evaluating NP effectiveness. Effectiveness was defined as NP performance and / or outcomes of practice (p. 303). Studies were evaluated on the basis of scientific merit; that is, on study design, validity, reliability, generalizability and statistical analysis. Studies were excluded from the review "if NPs could not be isolated from other health professionals in terms of outcomes evaluated" (p. 303). Through a systematic process of critical analysis by a group of "NP expert" nurse scholars, it was determined that 56 studies met pre-established criteria in terms of being average or above average in regard to (a) relevance, (b) clarity and

(c) lack of methodological flaws. The results of the review were presented in tabular format and included several large clinical trials of NP outcomes, all of which had demonstrated equivalent or better outcomes of NP managed care compared to physician managed care. Feldman et al. also determined that several large quasi-experimental studies met the stringent criteria of their review process, as well as a handful of descriptive studies. While there were some differences between study findings, an overall high degree of consistency was demonstrated supporting the effectiveness, safety and acceptability of NP practice. Notably, virtually all of the studies included in this review compared NP practice to physician practice.

Several years following the Feldman et al. (1987) review, Brown and Grimes (1995) conducted a meta-analysis evaluating patient outcomes of NPs and nurse midwives. The basis of comparison was again physician practice. Thirty-eight studies of NP practice were included in the meta-analysis. Practice was evaluated on the basis of 33 specified outcomes. Brown and Grimes found that while outcomes of NP and physician practice were equivalent on most variables in controlled studies, in studies that were randomized to provider, NP-managed patients demonstrated better patient compliance with treatment recommendations. Moreover, "in studies that controlled for patient risk in ways other than randomization, patient satisfaction and resolution of pathological conditions were greater for NP patients" (p. 332). Of relevance to the present research, Brown and Grimes noted that a limitation in the data of the studies they reviewed "precluded answering questions of why and under what conditions these outcomes apply" (p. 332). Thus, there is an implied need for research that considers outcomes of practice within a contextualized understanding that encompasses structure and process.

More recently, Horrocks, Anderson, and Salisbury (2002) undertook a contemporary systematic review of randomized controlled trials and prospective observational studies of NP practice compared to physician practice. This review included many of the studies included in the earlier reviews as well as several contemporary clinical trials (e.g., Kinnersley et al., 2000; Mundinger et al., 2000; Shum et al., 2000). Studies were excluded if data on patient outcomes were not provided. Outcomes included patient satisfaction, health status, process of care and health costs. Based on criteria that were developed by the Cochrane Effective Practice and Organisation of Care Review Group, a mere 11 randomized trials and 23 observational studies were included in the Horrocks et al. review.¹⁹ No significant differences were found between physicians and NPs in terms of health outcomes; thus, conclusions drawn from this review were consistent with previous reviews: "Nurse practitioners seemed to provide a quality of care that is at least as good, and in some ways better, than doctors" (p. 821).

The literature addressing the evaluation of NP practice offers three important insights for the proposed research. First, as noted previously, physician practice has been the "gold standard" against which NP practice has historically been judged, both in the BRCT and in subsequent research. At the time the BRCT was conducted, physician practice in primary care would have offered the only standard, albeit a normative one, against which to evaluate NP practice. However, the advent of evidence-based medicine in 1992 (Evidence-Based Medicine Working Group, 1992) has led to the development of evidence-based standards of practice, thus providing evidence-based anchors against which to evaluate the quality of practice. Second, a point not addressed in the literature reviewed here, the narrow focus on

¹⁹ Notably, the BRCT withstood the test of time and was included in the small group of 11 randomized control trials that met the Cochrane criteria for inclusion in the Horrocks et al. (2002) review.

the part of NP practice that overlaps with what has been traditionally considered physician practice, has been at the expense of better understanding the part of NP practice that remains grounded in nursing and that NPs purportedly enact as advanced practice nursing. Nursing is now also moving towards developing an evidence-base for practice, implying the possibility that advanced nursing practice may also eventually be evaluated against evidence-based anchors. Third, as Brown and Grimes (1995) observed, research is needed to develop a better understanding of *how and why* NP practice influences patient outcomes.

Appraising Outpost Nursing Practice

In contrast to the plethora of research that has established NPs as safe and effective primary care providers, only two studies were located that specifically addressed patient health outcomes in remote aboriginal communities, where most primary care is provided by outpost nurses. The first study, which was specific to nurse-managed primary care in a remote aboriginal community, was a master's thesis by Knopp (2001). Knopp conducted a comparative retrospective chart review (n = 985) over a six-month period in one remote aboriginal community in Saskatchewan. The variable of interest was the management of ambulatory infectious disease in children aged one to five years (e.g., upper respiratory tract infections, skin infections and otitis media were the three most common diagnoses). The care of patients managed by NPs (n = 574) was compared to that of patients managed by primary care physicians (n = 411). Ten NPs and three primary care physicians practiced in the health center during the six-month time frame of the chart audit. Practice patterns were compared on six parameters: (a) population of children seen by health care provider, (b) diagnosis of children seen by provider, (c) diagnostic tests ordered, (d) prescribed treatment (primarily antibiotics prescribed), (e) follow-up suggested, and (f) adherence to practice standards.

Knopp (2001) identified the outpost nurses in her study as NPs, based on the nurses' having "special advanced training in primary care" (p. 26). The literature review provided by Knopp focused on situating the NP as an advanced practice nurse (APN) prepared at the graduate level and having significant knowledge and skills beyond basic nursing education. However, of the outpost nurses in Knopp's study, nine held diplomas in nursing and one held a baccalaureate degree in nursing. The meaning of "special advanced training in primary care" was not made explicit. Thus, it is unclear how or whether the outpost nurses in Knopp's study met her definition of NP as an advanced practice nurse, or by what criteria it was determined that these nurses were NPs, other than that their role included primary care. Despite this lack of clarity, it appeared clear that the educational preparation of the nurses in Knopp's study was similar to that of most outpost nurses.

Chart data were abstracted using a data abstraction tool developed and pre-tested by Knopp (2001) and reviewed by "experts" for face validity (personal communication, J. Knopp, March 2, 2004). Overall, few significant differences were found between the practice patterns of the NPs and physicians in the study (Knopp). The main significant difference noted by the researcher was that while rates of antibiotic prescription were equivalent between NP and physician providers, the class of antibiotic differed by provider, with NPs tending to prescribe more penicillin based drugs, and physicians prescribing more cephalosporins and sulphonamides. There is no evidence that data related to nonpharmacological interventions were collected. NPs also documented requested follow-up with patients more frequently than did physicians.

The usefulness of Knopp's (2001) study is limited by several important considerations. For example, the study relied exclusively on patient chart data. Knopp noted problems such as inconsistency and incompleteness that are associated with this strategy, and

which have been noted by other researchers as well (Buhler et al., 1988; Gilbert, Lowenstein, Koziol-McLain, Barta, & Steiner, 1996; Robertson & Sheps, 1984). However, inconsistent, incomplete or unclear chart information has important implications for continuity of patient care. In particular, informational continuity may be compromised in settings where patients are seen by different health providers or where there is a high turnover rate of health care providers. Knopp remarked on the difficulty of acquiring data from other sources (i.e. databases) in a remote health center setting. She also noted that NPs' chart documentation tended to provide more complete data than physician's chart documentation.

Knopp (2001) observed that structural factors might have influenced NP's and physician's practice. For example, she stated, "When describing and comparing the treatment prescribed by health care providers in Pelican Narrows, it is important to first understand the structure of the clinic" (p. 55). However, data regarding key structural factors was not presented in a systematic manner as part of the data collection and analysis. Confidence in study findings would be strengthened if possible confounding and mediating structural factors had been considered at the outset of the study.

Evaluating practitioner adherence to practice standards (using CMA practice guidelines) was found to be problematic due to the lack of guidelines available for several of the clinical diagnoses, and the finding that the physicians in the study did not use standard guidelines. Thus, while practice patterns were found overall to be comparable between the NPs and physicians, it remains unknown whether the practice of either group was of an acceptable standard. It is also unclear how care may have been shared between providers, such as might be the case if a NP consulted with a physician. Overall, Knopp's (2001) study was significant in that, despite identified conceptual and methodological concerns, it appeared to be the only existing evaluative study of primary care delivery by outpost nurses.

The second study that addressed patient health outcomes in remote aboriginal communities was the study by Minore et al. (2002, 2005), discussed earlier in this dissertation from the perspective of its relevance to conceptualizing continuity of care. While this was not a study of nurse-managed primary care per se, because outpost nurses were "the principle primary care providers" (p. 13) in the remote communities where the study took place, it was ipso facto a study of nurse-managed care.

The Minore et al. (2002) study was commissioned by FNIHB (Ontario Region) and the Shibogama First Nations Council in response to concerns about continuity of care that were raised by a physician who had worked as a locum in the Shibogama First Nations communities. The multi-site case study, conducted in three Shibogama First Nations communities, used both quantitative and qualitative strategies to explore the adequacy, timeliness and cost-related factors of health services in the communities. One key research question addressed the relationship between lack of continuity of care and client health outcomes. Donabedian's structure-process-outcome framework provided a conceptual framework for the research. The study was a retrospective chart review that extracted chart data on three selected health conditions (i.e., diabetes, oncology and mental health) over a five-year period. These conditions were selected on the basis that "within the domain of each of the selected pathologies, adverse clinical outcomes among patients underscore the importance of continuity" (p. 3).

Chart data were collected using data extraction tools developed specifically for this study (Minore et al., 2002). The tools were based on the FNIHB *Clinical Practice Guidelines* (Health Canada, 2000c), which provided the standard of practice for nursing. These tools

...were designed to give a holistic assessment of the health system's response to clients, rather than measure the performance of individual care providers, which is conventionally the outcome of chart audits. The tools also had to capture information

along several dimensions: time sequence and actions taken by provider category in assessing, diagnosing, developing/implementing a treatment plan and evaluation. (Minore et al., p. 7)

Data were also collected through in-depth interviews with 30 individuals and interpreted in accordance with qualitative data analysis strategies.

Specific data on health outcomes were not presented in the Minore et al. (2002) study report. However, the discussion of findings suggested that poor outcomes were related to discontinuity of care. Major factors contributing to the lack of continuity were inadequate preparation and education of health providers (referring to non-nurse providers such as physicians and mental health workers as well as nurses), the failure of primary care providers to do "holistic assessments" of patients (p. 21) (i.e., process of care), lack of follow-up care, and failure to communicate patient information between providers (i.e., due to structural factors such as chart organization and appointment-booking systems). Continuity of care was also viewed as being related to the larger system of health services organization and what might be characterized as micro-meso-macro system interplay.

The study by Minore et al. (2002) offered two key implications for the present research. One, it demonstrated the existence of problems in each component of the structureprocess-outcome model and its value to research in remote aboriginal communities, allowing evaluation of outcomes as a reflection of a system of care and not merely as the result of a specific regime of care or an individual provider or patient. Thus, it verified the conceptual validity of exploring continuity of care as a link between the process and outcomes of health care. And second, it demonstrated the utility of using multiple research strategies, or combining qualitative and quantitative methods, to achieve an in-depth understanding of "how things work" in the unique context of aboriginal health services in remote settings.

Summary

This substantive critical synopsis of the literature has attempted to thread together extensive bodies of literature from four separate, albeit related, fields of knowledge: (a) rural and remote health research, (b) the historical and socio-political context of aboriginal health and health services in Canada, (c) outpost nursing, and (d) the evaluation of primary care practice. It was not each distinct body of knowledge in itself that was most relevant to the present research, but the discrete ways in which each body of knowledge interfaced with the others. That is, there was a particular area of overlap between each of these four bodies of knowledge that I endeavored to extract, critically examine and present in a way that engendered clearer understanding of the unique, complex and multi-dimensional issue of health and health services in remote aboriginal communities. The conceptual framework of the Nursing Role Effectiveness Model, adapted to fit the specific context of this research, offered a way to organize this information that clarified the inter-relationships suggested by the literature (see Appendix B).

One startling observation about the literature was that it was largely based on graduate student research. Another observation was that so few scholars are actively involved in researching health services in remote aboriginal communities, despite broad recognition that aboriginal people and residents of northern and remote regions experience the poorest health status of all Canadians.

Data related to health outcomes in remote communities are largely unavailable or difficult to access. Very little research exists linking the structure and processes of health services to health outcomes in remote communities. In particular, there is little research describing how the process of nursing care may influence health and health outcomes. While previous research suggests that organizational and structural issues affect nurses' practice,

there is little information about *how* these issues influence either the process of nursing care or health outcomes. There is limited knowledge regarding the core knowledge and competencies that nurses need to work in remote aboriginal communities, about how nurses acquire needed competencies, or what education and experiential backgrounds might best support nursing practice in the Nursing Station setting. There is even less knowledge about how nurses enact necessary knowledge and competencies, or about how the three dimensions of continuity of care identified by Reid et al. (2002) are demonstrated in the process of nursing care. The present research aimed to address these gaps in current knowledge by providing insights and increasing our understanding of the complex inter-relationships that exist between the context and structure of health services delivery, the process of nurses' work and continuity of care, and health outcomes in remote aboriginal communities.

CHAPTER FOUR

RESEARCH DESIGN AND IMPLEMENTATION

Introduction

The phenomenon of continuity of care and how it is influenced by multiple contextual, structural and process factors represents a complex research problem. The unique nature of the organization of health services in remote communities adds another distinct layer of contextual complexity. There are few evaluative studies of nursing practice in remote communities and little relevant literature informing us of the inter-relationships between the context, organization and structure of health services delivery, the process of nurses' work and health outcomes. Even data relevant to health services research is challenging to access; few (if any) remote health facilities have yet implemented an effective computer database system for maintaining patient records. Patient data from these communities is also notably missing from the larger national and regional level administrative databases (e.g., CCHS). Thus, patient data related to health outcomes remains relatively inaccessible.

All of these issues contributed to the blurred boundaries that were evident between the research phenomena and its context; they created a research environment that was both challenging and problematic. Conventional health outcomes research designs lacked the scope and flexibility required to shift focus between the broad gaze necessary to integrate understandings of the broader context, or the macro-level of health services delivery, the meso and micro-levels of the processes of care delivery (i.e., the processes of nursing practice) and the micro-level of individual patient health outcomes (Sidani et al., 2004). The limitations of conventional research to answering research questions about complex phenomena in health care are becoming more widely recognized: "The search for adequate tools to monitor and evaluate the quality of nursing care is not new, but it has been hampered

by narrow conceptual models and inadequate research tools" (Sidani et al., p. 60). Given the complex, multi-factorial and contextualized nature of outpost nursing practice, these issues were highly relevant to the present study. The objectives that directed the present research reflected this degree of complexity and demanded a method of inquiry that facilitated an understanding of the phenomena of interest, as it exists within a complex system. An ethnographic method offered the necessary scope and flexibility to achieve the objectives of this study.

Method of Inquiry: Ethnography

While different forms of ethnographies exist (e.g., institutional ethnographies, critical ethnographies, medical ethnographies, and ethnographies of work or educational settings [Atkinson, Coffey, Delamont, Lofland, & Lofland, 2001]), they are each underpinned by common guiding concepts. These conceptual underpinnings include "culture, a holistic perspective, contextualization, emic perspective and multiple realities, etic perspective, non-judgemental orientation, inter-and intra-cultural diversity, structure and function, symbol and ritual, micro and macro, and operationalism" (Fetterman, 1998, p. 475). Thus, ethnography is conceptually consistent with the guiding concepts of this research, presented in Chapter Two.

Exploring health and nursing practice within the broader contexts of a remote First Nations community, and aboriginal health and health services in Canada, necessarily implied not only the concept of culture, but also the intersection of multiple co-existing cultures. For example, intersecting cultures included the self-identified culture of the First Nations community, the "mainstream" or dominant Canadian culture of most of the non-First Nations participants, the culture of living in an isolated northern community (Tarlier et al., 2003), the organizational culture within the Nursing Station, as well as the organizational culture of FNIHB. The concept of cultures in the context of the study site also implied the enculturated

social conditions of inequity, poverty, and dependence that are the result of the colonial roots and socio-political history of aboriginal peoples in Canada.

A broad conceptualization of culture as complex, dynamic, relational, and shaped by political, social, and historical influences (Browne & Varcoe, in press; Reimer Kirkham et al., 2002) underpinned the understanding of culture in this study and supported the assumption of multiple co-existing cultures. Kirmayer, Simpson, and Cargo (2003) defined a similarly broad view of culture:

While older anthropological writing conceived of cultures as closed, homogenous and sometimes static systems, contemporary ethnographers view cultures as local worlds that are constantly in flux. There is great variation in knowledge, practice and attitudes among individuals within a cultural group, with significant conflict, resistance and contestation of dominant values. Local worlds are embedded in larger global systems that bring diverse peoples together through migration, mass media and other forms of contact and exchange. As a result, most individuals have access to and participate in multiple cultures. Individuals use this multicultural background to navigate, communicate and provide rhetorical supplies and discourses within which to locate and construct socially and psychologically viable selves. (p. s19)

It is important to acknowledge that while some contemporary nursing scholars are applying a critical theoretical lens and advocating a broader conceptualization of culture (e.g., Allen, 1999; Browne & Varcoe, in press; Doane & Varcoe, 2005; Reimer Kirkham et al., 2002), within nursing practice generally, culture continues to be defined primarily in narrow culturist terms. Such narrow views of culture have led to the prevalence within nursing of understanding culture as static, and chiefly associated with specific traits that are readily identifiable with a particular culture (e.g., specific customs or beliefs) (Reimer Kirkham et al.). Narrow understandings of culture typically serve to reinforce aspects of difference between the dominant culture and another culture, thereby also reinforcing the type of pervasive negative stereotypes about non-dominant cultures that exist in wider social discourses (Browne & Varcoe). Recognizing the tensions between a broad versus a narrow

conceptualization of culture was critical to analyzing the data in this study related to participants' discussions of culture.

To support the identified objectives of this study, a research method was conceptualized wherein qualitative and quantitative data were equally privileged, each perspective informing the other. While ethnography has come to be considered primarily a qualitative research method (Morse & Field, 1995), ethnographers have historically combined qualitative and quantitative methods of data collection and analysis to foster a complete and comprehensive understanding of the research phenomena (Fetterman, 1998). Combining or integrating quantitative and qualitative strategies under the umbrella of ethnographic methodology has gained contemporary recognition also:

In terms of methodological innovativeness, the most interesting examples of ethnographic inquiry that include qualitative and quantitative approaches, as well as varied levels of analysis, are those in which the ethnographer plays an active if not leading role in research design and is thereby able to maintain a primary interest in cultural analysis (Chambers, 2000, p. 859).

Therefore, ethnography was appropriate to the mixed methods design of this study.

The present ethnographic research was further framed as a case study to clarify the boundaries that were placed around the phenomena of interest. I have previously made the point that an understanding of the broader context of health services delivery in remote aboriginal communities is critical to conducting meaningful research in this setting. However, neither the context itself nor the overall organization of health services in aboriginal communities was the primary focus of this research. Having acknowledged these as being inextricably linked to the delivery of health services in aboriginal communities in general, the focus of this research shifted to the delivery of health services in one particular First Nations community. In identifying a case, Stake (2000) observed,

It is common to recognize that certain features are within the system, within the boundaries of the case, and other features outside. Some are significant as context... boundedness and behavior patterns are useful concepts for specifying the case (p. 436).

Thus, the boundaries of this research were set around the delivery of health services in one study site, while acknowledging the influence of the larger context.

The Study Site

This research was conducted in the Nursing Station of a remote First Nations community in northern Canada. The study site was purposefully selected on the basis of four specific criteria: (a) primary care was provided chiefly by nurses / nurse practitioners working in an expanded and advanced nursing role and within a primary health care framework, (b) the community population was greater than 1,000, (c) the Nursing Station employed a minimum of four nurses, and (d) the community was isolated both geographically and in terms of access to health care providers other than nurses (i.e., no doctor was resident in the community).

These selection criteria are typical of most remote aboriginal communities where outpost nurses practice; therefore, the study site may be considered typical of Nursing Stations in most mid-sized or larger remote aboriginal communities in northern Canada. Additionally, requiring that the study site Nursing Station be operated under FNIHB or a territorial government authority ensured that nurses were legally covered to work in an expanded and advanced role, and that they were more likely to have access to resources to support expanded and advanced role practice (i.e., a scope of practice document, clinical guidelines, and explicit expected practice competencies).

Many remote aboriginal communities in Canada have fewer than 800 residents. A community of this size would employ only two to three nurses, and the number of health-

related clinic visits for primary care would be correspondingly small. To meet the objectives of this study, a larger community and a larger Nursing Station offered greater scope for exploring how aspects such as staffing, nursing workload, and communication and referral patterns among providers influenced continuity of care. Additionally, a larger community population size was necessary to provide an adequate number of patient charts to allow for a statistically meaningful analysis of chart data.

Gaining Entry

Access to several potential sites that met the pre-established selection criteria was initially negotiated with the Regional Nursing management of FNIHB in Manitoba. Access to a specific site was then negotiated and finalized with the Nurse in Charge (NIC) of the Nursing Station in that site. FNIHB committed to providing support in kind by supplying me with accommodation in the study site while fieldwork was carried out.²⁰

During a preliminary visit to the site prior to beginning data collection, the NIC provided me with a liaison to the Band Chief and Council, the recognized authority within the local community (CIHR, 2005). The liaison was an experienced Community Health Representative (CHR), a health worker who was a member of the local community and worked in the Nursing Station, but who was employed by the Band. The CHR arranged for me to present my research plan to the Band Councillors. After considering my research plan the Band Councillors provided me with a letter approving the study and authorizing me to carry out research within the community.

During the three-day preliminary visit, I presented my study to the nurses and staff working in the Nursing Station, spent time talking with nurses and staff, responded to

²⁰ Accommodation in remote aboriginal communities is often at a premium and very difficult to obtain; thus this represented a significant offer of support.

questions about the study, and familiarized myself with the site. This was also an opportunity for the staff and nurses to become familiar with me, and to become accustomed to seeing me "hanging around". I also conducted a pilot test of the data abstraction instruments during this time. This proved to be time well spent, as when I returned a few weeks later to begin data collection, I had already begun to establish a working relationship with the individuals who were key informants and who were instrumental in helping me to gain and maintain access within the study setting.

Units of Analysis

The main unit of analysis was the Nursing Station. Individual patients and nurses represented embedded units of analysis within the larger "case". While data from several sources (i.e., observations, interviews, review of patient charts) were collected from individuals, and a preliminary analysis of the chart review data occurred at the individual level, the data was ultimately interpreted at the Nursing Station level. To illustrate, regarding survey data collected at the individual level, Yin (2003) stated, "These data may be highly quantitative, focusing on the attitudes and behaviour of individual clients, and the data will be used along with archival information to interpret the success and operations at the given center" (p. 52-53). Thus, in this research, although data related to individual patient outcomes was collected and initially analysed at the individual level, the real utility of these data was in how individual findings contributed to a better understanding of continuity of care at the organizational level (see Appendix C).

Overview of Data Collection Strategies

Data collection was directed and guided by the research objectives and the adaptation of the Nursing Role Effectiveness Model conceptual framework that guided this study. The framework specified structure, process and outcome factors identified in the literature that

were thought to influence the practice of outpost nurses (see Appendix B). Specific questions designed to target the collection of data addressing each identified factor were explicated in the data collection protocol (see Appendix D). These questions served as "reminders regarding the information that needs to be collected and why" (Yin, 2003, p. 74).

Ethnographic data collection strategies were used, with the goal of generating the level of "thick description" that supported an in-depth analysis (Morse & Field, 1995, p. 156). These strategies included (a) conducting interviews with key informants (e.g., nurses, Nursing Station staff and managers); (b) direct observations (e.g., of patterns of interactions between nurses, patients, other health professional and paraprofessional staff, and relationships within and external to the Nursing Station); (c) focused conversations with key informants, patients and community members that helped to clarify or provide insight into field observations, (d) writing field notes; and (e) collecting documents and physical artefacts (e.g., work schedules, maps, photographs and communication tools such as patient chart forms). Quantitative and narrative data (in the form of contextual notes) were also collected from the review of patient charts, using the chart data abstraction tools. Each strategy is discussed in greater detail below.

Data collection took place during two visits to the study site, approximately one month apart. In total, I spent approximately six weeks in the study site. I conducted observations and interviews, collected artefacts, and abstracted chart data throughout these six weeks. The Nursing Station operated regular hours between 8:30 a.m. and 5 p.m., Monday through Friday. Observations took place primarily during regular clinic hours. I was allowed access to the Nursing Station after-hours, and I often worked in the Nursing Station during the evening hours and over the weekends, abstracting data from patient charts. During these times I often had the opportunity to observe nurses' interactions with staff and patients

when nurses were called back to the clinic after regular hours. Thus, data collection was continuous during the times I was in the study site. Most of the nurses who agreed to be interviewed expressed the preference to be interviewed during their off-work hours; therefore interviews were most often conducted when the clinic was closed (i.e., during evenings and week-ends). Some nurses and all clinic staff preferred to be interviewed during work hours.

The Data Set

The data set was comprised of data derived from patient chart review, interviews, observations, artefacts (including photographs), and a personal reflective journal I kept while in the field. In total, this represented a substantial data set. I endeavoured to collect as much of the data as practical directly on a laptop computer, to simplify the task of cataloguing and organizing.

Patient Chart Review

Quantitative data related to the identified clinical health indicator conditions, health outcomes and continuity of care were abstracted in accordance with the data abstraction tools developed for this study. Two data abstraction tools were developed, one for each of the two indicator conditions: prenatal care and care of the infant through the first year.

Chart data abstraction instruments

Data abstraction tools were based on health indicator conditions and criteria originally developed for the BRCT (Spitzer et al., 1974), updated and modified to reflect current clinical practice expectations of nurses providing primary care in FNIHB Nursing Stations (Health Canada, 2000c, 2001a). Data were abstracted from review of patient charts for each indicator condition in accordance with the relevant Data Abstraction Instrument Protocol (see Appendix E).

The decision to base chart data collection on the two conditions of prenatal care and infant care through the first year was based on the expectation (confirmed during pilot testing) that these two groups of patients would provide an adequately large sample for the purpose of this study. Each indicator condition was managed primarily by nurses in the Nursing Station setting, yet potentially offered referral to a physician or other health care provider as an appropriate intervention, thereby lending itself to exploring informational and managerial aspects of continuity of care.

To increase the utility of the data abstraction tools to exploring the phenomena of continuity of care in remote aboriginal communities, the BRCT tools (Sibley, 1976) were further adapted to a format that was similar to the format developed by Minore et al. (2002). Minore et al. developed tools for abstracting chart data on three health conditions: diabetes, mental health and oncology. These tools were developed to capture chart data along the dimension of time, which is key to understanding continuity. The tools were based on the FNIHB clinical guidelines for nurses; thus, they were developed specifically for use in FNIHB Nursing Stations in remote aboriginal communities. Minore et al. pilot-tested and substantially revised the tools prior to implementation.

By superimposing the BRCT data abstraction tools for the selected two indicator conditions onto a longitudinal framework that was conceptually similar to the one developed by Minore et al. (2002), I refined the BRCT tools so as to render these more specific to both application in a remote aboriginal health centre setting, and to the exploration of continuity of care. I defined episodes of care more broadly than they were originally defined for the purposes of the BRCT, to better capture the dimension of time. This broader definition, when combined with a tool that was adapted to capture the dimension of time, facilitated capturing

data related to care provided between or outside of the more discrete episodes of care that were defined by the BRCT.

Each of the two data abstraction tools was also used to collect basic demographic data on each patient (i.e., age, gender). Date of birth was not collected, as this information could constitute a risk to anonymity in a small community. Patient charts were assigned a unique identifier number. Basic data included the first and last date of the identified episode of care. Data were collected for each patient visit during the episode of care, which allowed for the appraisal of care over a longitudinal continuum that facilitated an appraisal of the continuity of care. Chart information that was collected included:

- Type of health provider seen (e.g., nurse, physician, resident, specialist) and number of different providers;
- Type of visit (i.e., assessment, follow-up, referral / consultation, follow-up of referral);
- Completeness of assessment;
- Completeness of management and indicated interventions for routine care;
- Completeness of patient monitoring and follow-up, including whether referrals and consultations were appropriately carried out;
- Clinical outcomes appropriate to each indicator condition and reflected as either satisfactory or unsatisfactory outcomes (e.g., prenatal health outcomes were infant birthweight, gestational age at delivery, complications of pregnancy, labour or delivery, and attendance for routine postpartum care between six and eight weeks' postpartum; infant health outcomes were infants at age one year who had up-to-date immunization status, adequate weight gain and evidence that the hemoglobin had (a) been checked between six and 12 months of age, and (b) the hemoglobin value had been within normal limits);
- Other clinical data specific to the indicator condition (e.g., gravida /para status, diabetic status for prenatal patients).

The adapted and modified instruments were pilot tested in a small sample (n = 20) of patient charts that were sampled from a time outside of the time period defined for the purpose of chart data collection. These charts were identical in format and type of content to the charts of patients later included in the sample. The data abstraction tools were also updated to reflect contemporary methods of data collection using Excel© computer software. Data from each patient chart were put directly into a separate spreadsheet. Prenatal data spreadsheets were collected in a "PN Workbook", and infant care spreadsheets were collected in a "NB Workbook". Key indicator values were pre-set to roll data over automatically from each spreadsheet to a "Summary Sheet" of statistics in each of the two workbooks. Basic descriptive and some comparative statistics could then be easily run within the Summary Sheet of the Excel© spreadsheet.

Reliability and validity of the chart review instruments

The original criteria for each indicator condition developed for the BRCT were developed in the early 1970's, at a time predating the formalized existence of the evidencebased clinical practice guidelines that represent the standards of "best practice" today. Similar to the "expert" consensus approach upon which the development of evidence-based practice guidelines continue to rely, the original criteria were developed and pre-tested through a process that relied on a Peer Advisory Committee, composed of three family practice physicians who were acknowledged to have experience and expertise in primary care practice (Sibley et al., 1975). A comparison of the criteria with mortality, morbidity and patient outcomes data supported internal consistency and validity (Sackett et al., 1974; Sibley et al.). Subsequent studies appraising the utility of the method further supported the validity of using these criteria to evaluate patient outcomes (Sibley, 1976).

Early studies using the indicator condition criteria and data abstraction tools also demonstrated a high level of interrater reliability, ranging from 88% to 94% (Sibley et al., 1975). Later researchers using the same instruments found similarly high levels of reliability, as discussed previously (i.e., in Chapter Three). Minore et al. (2002) did not offer statistical support for the reliability and validity of the data abstraction tools developed by their team;

however, after initial pilot-testing revealed weaknesses in the tools as originally developed, the tools were substantially revised and re-tested.

As discussed above, the indicator condition criteria and data extraction tools adapted for this study were updated to reflect the FNIHB clinical guidelines, which represented the current standard of practice expected of nurses employed by FNIHB. These guidelines were also compared with other current and widely accepted evidence-based clinical guidelines (e.g., CMA guidelines) to ensure that the FNIHB guidelines reflected current standards of practice. During the pilot test, the criteria were reviewed by "expert" local practitioners familiar with practice expectations of nurses in the study site and were found to reflect current practice expectations.

Chart Review Data

An important insight that resulted from pilot testing the sampling protocol and abstraction instruments was that patient charts could be sampled on the basis of maternalinfant dyads. This change in sampling strategy resulted in acquiring chart data that were uniquely appropriate to investigating the phenomena of continuity of care, as it allowed continuity to be traced from prenatal care of the mother, through the perinatal period, and to the completion of the first year of infancy. This resulted in much richer data related to continuity of care than originally anticipated.

In total, 128 patient charts were manually reviewed, representing approximately 22% of all births that occurred during the pre-determined eligibility period. For the first round of data collection, the time period was selected so as to ensure that all infants would have reached their first birthday prior to the start of data collection. This ensured that the infant chart review would capture data from the entire first year of infant health. For the first round of data collection, the charts of 50 mother-infant dyads were randomly selected using the

random number generator feature available in Excel© software, and the "Birth Book": a handwritten record of all infants born to women resident in the community. There were several instances when the chart of either a mother or an infant could not be located in the Nursing Station, and in these cases, another name was selected at random from the Birth Book.

Early in the chart review process, two of the infant charts could not be located after the mother's chart had already been reviewed and the data extracted. I decided to keep the data extracted from these two maternal charts, but in the future I ensured that both charts of a maternal-infant dyad were available prior to reviewing either one. If one chart of a dyad was missing, another dyad was selected at random. Thus, the first round of data collection included the charts of 50 mothers and 48 infants. In the four instances of twin births, only the chart of the infant that had been randomly selected was included in the chart review. The charts of five women were reviewed twice, for two different pregnancies during the defined time period. Being able to follow women through subsequent pregnancies in this way added a rich dimension to understanding the data related to continuity of care.

For the second round of data collection a further 30 charts (i.e., 15 maternal and 15 infant charts) were selected using the same process, although the criterion for the eligible time period was moved forward by one year to offer the opportunity to review charts during a more recent time period. Thus, for the second round of chart reviews, seven infants had not yet reached their first birthday and therefore, data related to infant health outcomes at age one year were not available for those seven infants.

Both qualitative and quantitative data were extracted from patient charts. Qualitative data were abstracted in narrative form as "contextual notes". These notes were a brief synopsis of each chart (i.e., there were 128 separate notes) based on review of the chart as a

whole. The meaning of a contextual note was often reflected upon in an accompanying interpretive memo. The contextual notes and interpretive memos provided context and an analytical strategy to help "explain" the quantitative data; or often, an explanation for missing or unclear chart information. The quantitative data described *what* was found on chart review; by adding a contextual understanding, the qualitative contextual notes created the possibility for also understanding *how* and *why*.

Interview Data

Data were derived from two types of interviews: formal interviews that were arranged beforehand with the participant, and informal interviews (i.e., focused conversations) that occurred "in the moment" or during the course of engaging in other fieldwork. Most formal interviews ranged between 30 and 45 minutes in length. These interviews combined semistructured and unstructured questions, and loosely followed a pre-set list of "trigger questions" (see Appendix F). Formal interviews were taped and later transcribed, with one exception; one interviewee declined my request to tape the interview. During this interview, I jotted down the participant's responses to my questions and wrote up these jottings as a comprehensive field note immediately following the interview. Two of the interviews were done with two nurses who preferred to be interviewed together. Thus, 15 participants were represented in the 13 formal interviews. Formal interview data consisted of 12 interviews with direct health care providers (i.e., nurses, physicians, CHRs) and three interviews with administrative level staff.

The informal interviews represented substantive or key discussions with 16 individuals. In a few instances these individuals also participated in a formal interview. The informal interviews occurred spontaneously, at times when it was not practical or desirable to tape the conversation, or when requesting permission to tape (or to leave to get the tape

recorder) might have disrupted the flow of the discussion or caused the participant to be less open in his or her communication. Informal interview data were written up as field notes as soon as possible following my interaction with the participant.

Several participants appeared to view the taping of interviews with trepidation. Even after having read and signed informed consents agreeing to participate in a taped interview, they were careful to verify with me beforehand that no names would appear to connect them with the interview. A few participants appeared uncomfortable and in a hurry to complete the interview, but after the interview had "officially" ended and the tape recorder had been turned off, they continued to talk, sometimes for up to another 30 minutes. These participants appeared more relaxed and spoke more openly after the taping ended. In these instances, I jotted notes as soon as possible following the interview. These notes were later added to the transcribed interview as either pre- or post-interview observations.

I considered certain of the Nursing Station staff to be key informants, being both members of the local community and also familiar with the operation of the Nursing Station. The purpose of interviewing selected key informants was to illuminate and provide insight into aspects of the data collected through observation and chart review. My initial research plan had called for interviewing patients and other community members (such as health council members or community health workers) who were identified as key informants largely on the basis of their ability and willingness to share an "exemplar" experience of continuity or discontinuity of care, either as a patient themselves, or from a position of familiarity with patients' experiences. This strategy was consistent with the notion of sampling critical cases, or those cases that the researcher judges will best illuminate or offer insight into particular aspects of the phenomena of research interest (Maxwell, 1998). It was also consistent with Fetterman's (1998) description of "judgemental sampling" (p. 480),

wherein the researcher selects "the most appropriate members of the subculture or unit, based on the research question" (p. 480). I was able to interview a few key informants who were community members and health workers. However, despite several requests made through the CHRs to negotiate access to patients or other community members who were willing to be interviewed, I was unable to gain access to informants from this group. I was unable to determine an exact reason for this, but my sense was that my designated "liaison" was uncomfortable approaching individuals on my behalf, and I speculated that this was possibly because it was not considered part of the regular CHR job duties, thus my requests competed with the CHR's other expected work responsibilities.

Observational Data

Observational data were written up as field notes. Jottings were entered in a small notebook as events were observed and were written up more fully as field notes later the same day. Field notes were entered directly into a Word© template on a laptop computer. The template was designed in six sections: (a) date and time, (b) where the observation took place and who was present, (c) a description of the observation, (d) interpretive insights, (e) follow-up ideas, and (f) special notes. The latter three sections were not consistently completed, but provided a space for capturing ongoing ideas, insights and musings about the observations, and for connecting different observations, or sometimes linking interview and observational data through a process of contrast and comparison.

There were two categories of observations in addition to the informal interviews that were written up as field notes, described above. The other two categories were patientprovider interactions (i.e., "encounters") and observations related to the structure and function of the Nursing Station and the community (i.e., "environment"). There were 16 observed patient-provider interactions and 38 observations related to context and structure.

I routinely joined the nurses in "morning report", which occurred at 8:30 a.m. every morning. This was the time when the nurses, the NIC, and any visiting health providers (e.g., physicians, residents, regional personnel such as educators or managers) met to review the patients that had called the nurse on-call after-hours the night before, as well as any other patients or situations that nurses wanted to discuss with their colleagues. It was also a general communication forum. One morning a week, morning report was extended to provide the nurses with time for "in-service", an educational session. Morning report and in-service time provided an opportunity to observe interactions among the nurses, and between nurses and other health providers, including communication patterns, referrals and consultations between nurses and physicians. Thus, morning report was a source of rich observational data.

Demographic Data

Demographic data pertaining to the study site community were accessed on-line at the Statistics Canada *Community Profiles* website. The demographic data are based on 2001 census data. Demographic statistics are related to population, family, housing, education, income, employment and religious characteristics of the community. These statistics provided important background information that helped to describe the broader community context in terms of socio-economic status and the social determinants of health. The demographic data also substantiated my impressions and insights about the community derived from observations and interviews collected during fieldwork. Demographic data were incorporated into the overall data analysis to provide context and help explain the analysis and findings.

Artefacts

Artefacts included photographs and miscellaneous maps, schematics and documents collected at the study site. These were categorized as being related either to the context of the

community and Nursing Station or to the process of delivering health care. Artefacts were not only a method of recording data, they also provided a graphic representation of the data and were useful for helping to communicate a sense of the data to an audience. The artefacts were also useful as an aid to my recollection of the community and events after I left the field.

There were 46 digital photographs (taken by myself) illustrating the community, Nursing Station, and nurses' residences. While the photographs included pictures of some individual nurses and staff members, no photographs were taken of patients or of nurses during a patient encounter. The photographs evoke a sense of the remoteness of the study site, and of some of the everyday challenges community members and health care providers encountered in living and working in this remote setting.

Locating a large-scale map of the community proved more difficult than I anticipated. In the end, I hand-drew a map showing the main features of the community. Similarly, when no one could locate a schematic of the Nursing Station, I hand drew a schematic of the layout of the facility, graphically showing the structure and space in which nurses' work was organized. Other artefacts included a copy of an aerial photograph of the site, receipts and lists of prices of some common items at the local Northern Store, a newspaper article related to the effects of gang violence in remote communities, schedules of flights in and out of the site, and a book of local stories that offered a glimpse into the recent history of the community.

Artefacts related to the process of delivering health care included documents such as patient chart forms (e.g., the Antenatal Record, Well Child Record), copies of the relevant guidelines nurses were expected to follow (e.g., Gestational Diabetes Screening guidelines), and copied sections of pertinent resource manuals available to nurses (e.g., FNIHB

Community Health Resource Manual). I also obtained charts of the organizational structure of each of the two organizations that were responsible for health services in the community: FNIHB and the local Health Directorate, and examples of the types of teaching and information resource materials that were available to nurses.

Personal Journal and Notebook

While in the field I kept two handwritten documents related to data collection: a personal journal and a notebook. The personal journal was a repository of my impressions and perceptions of the community, the Nursing Station and the people. The journal provided a venue where I could reflect on the process of data collection, or elaborate on insights, ideas and inspirations or "hunches" that came to me as I began to mentally work through the meaning in the data I was collecting. The process of writing reflectively also provided an opportunity to explore the effect that I, as the researcher, exerted on the research process, as well as the biases and "blind spots" that I brought to the process. The journal is a piece of the "audit trail" whereby I may retrace my thinking during the process of data collection and recall how I came to particular insights or beliefs about the data. The notebook was a simple memory aid, a tool for capturing all the details of data collection "in the moment", or as events occurred. Like the journal, the notebook is also a piece of the audit trail.

Overview of Participants

The three main groups of participants in this study were health care professionals (i.e., nurses, physicians and administrators), Nursing Station para-professional and support staff (i.e., CHRs, clerical, security and maintenance staff), and patients. Roles sometimes overlapped; for instance, some nurses also worked in administrative positions, and as in most Nursing Stations, maintenance and housekeeping staff were also responsible for taking xrays. Due to the general nature of some observations made within the public areas of the

Nursing Station and around the community, many individuals contributed anonymously to the overall data collection but did not directly participate in the study. For example, interactions were observed between clerical staff and patients in the waiting room. The individuals who are described here as participants each participated in the study in a formal sense, either through formal and informal interviews, or formal observations.

The largest group of participants, and the participants who were the main foci of interest in this study, were nurses. Fifteen nurses participated in the study (see Table 1). This group included nurses employed in dedicated public health and home care roles who were employed by the Band, as well as the nurses employed by FNIHB in the Nursing Station. Nurses' ages ranged from the early 20's to the mid-50's. Two nurse participants were male. Thirteen nurses were of European or Asian ancestry, and two nurses identified as First Nations. Of the seven nurses who were in permanent staff positions, three had been in their permanent position for less than three months, and three had been in a permanent position with FNIHB for more than one year. Two nurses in permanent positions were employed in administrative nursing roles. One of these two nurses identified as First Nations. All aboriginal participants in this study further identified as specifically First Nations people. Four nurses employed in a relief nurse position in the study site had previously held a permanent position with FNIHB in a different community for between eight months and three years. Three of the relief nurses were relatively new to Nursing Station work, having worked intermittent temporary assignments for a year or less. Most of the nurses who held (or had held in the past) a permanent position with FNIHB had taken the Primary Care Skills Course, and diploma-prepared nurses in a permanent position had also taken the Community Health Nurse Upgrade course offered by FNIHB (these two courses will be described in greater detail in Chapter Five). At the time of the study, one nurse was actively engaged in

obtaining a master's level nurse practitioner degree, and one diploma-prepared nurse

Table 1		
Demographic Characteristics of		
Nurses Who Participated		
N = 15	Position	Education
$Female = 13 \qquad Male = 2$	Permanent staff = 7	Diploma prepared $= 6$
Age range: early 20's to mid-50's	Relief staff $= 7$	BN/BSN prepared = 6
European or Asian ancestry $= 13$	Orientee = 1	Primary Care Skills Course = 6
First Nations $= 2$		Community Health Nurse
		Upgrade Course = 3
		Unknown =3

intended to start a BSN degree within the year.

Of the other health care professionals who participated in this study, two were physicians (one general practitioner and one specialist). Both had worked in the study site for several years and were familiar with the community, the operations of the Nursing Station and nursing practice expectations. One physician was male and the other was female. Physicians were not in the community on a permanent basis but visited on either a weekly or an intermittent basis.

Nursing Station para-professional and support staff that participated in the study included two CHRs, a health facility administrator, and staff such as maintenance, housekeeping, security and clerical workers. These participants were Band employees, had been in their positions for several years, identified as First Nations and were members of the local community.

Patients' participation in the study was limited to observations of their encounters with health care professionals (i.e., nurses) and in five cases, with para-professional health staff, and informal conversations that arose during such observations. Twenty women participated in observations; six observed encounters involved prenatal care and therefore involved only the woman as the patient, and 14 encounters involved women and their children. Of the children who participated in the study, all but one were accompanied by their mother (one child was accompanied by a grandmother). The ages of the children ranged from newborn to three years of age, with only three children over the age of one year.

Protecting the Anonymity of Participants

While recognizing the need to convey to the reader whose perspective is represented or illustrated by specific data presented in this dissertation, the relatively small number of individuals involved as participants, along with the impracticality of maintaining complete anonymity of the study site, mandated that some descriptive details be omitted or disguised to protect the anonymity of individuals. Therefore, wherever feasible, and particularly when the specific identity of an individual participant may influence how the reader understands the data, nurses have been identified as nurses, physicians as physicians, administrators as administrators, and so forth. I have been as specific as possible given the obligation to protect participant anonymity. However, where more specific identification of an individual participant may compromise anonymity, I have deliberately used a vague descriptor to identify the participant. For example, in some instances I have used "health professional" rather than identifying whether the participant was a nurse, physician or administrator. While both male and female health care professionals participated in this study, I have elected (in most examples) to refer to all health care professionals as female to further protect the anonymity of participants. I have also endeavoured to identify whether a health professional was First Nations or not, in examples where knowing this information about a participant's perspective may be relevant to better understanding the data.

Data Analysis

Analysis is one of the most engaging features of ethnography. It begins at the moment a fieldworker selects a problem to study and ends with the last word in the report or ethnography. Ethnography involves many levels of analysis. Some are simple and

informal; others require some statistical sophistication. Ethnographic analysis is iterative, building on ideas throughout the study. (Fetterman, 1998, p. 494)

The process of data analysis began in the field, and was conducted concurrently with data collection. Initial analysis involved repeatedly reviewing the data, reworking and rewriting from jottings in the field, to field notes that were continually expanded through the addition of interpretive memos. This strategy allowed me to identify key ideas in the data and to follow up on these while still engaged in fieldwork. Fetterman (1998) stated that "analyzing data in the field enables the ethnographer to know precisely which methods to use next, as well as when and how to use them" (p. 494). Thus, analysis of data in the field represented a critical part of the iterative process that characterizes ethnographic data . analysis (Fetterman).

Quantitative data related to patient demographics and health outcomes that were extracted from patient charts were analyzed using both Excel© and SPSS 10® software. Statistical data were primarily categorical and ordinal; therefore statistical analysis was limited to descriptive and comparative statistics. These statistics were sufficient to meet the intended purposes of including quantitative data in this study, which were to describe patient health outcomes on the selected two indicator conditions, and to complement and enrich the qualitative data related to continuity of care and nursing practice.

Qualitative data related to the chart review process (i.e., the contextual notes data) were analyzed using content analysis. Several key dimensions that characterized prenatal and infant care were identified through the process of content analysis. These key dimensions reflected the dimensions of continuity of care described by Reid et al. (2002). Content analysis of the contextual notes data also revealed dimensions of adequacy of care, health outcomes, issues embedded within the broader community context that influenced health
(e.g., poverty, illiteracy), and the context and structure of health services (e.g., communications between health providers or agencies).

Interview and observational data were also initially analyzed using content analysis. Analysis of the qualitative data set proceeded in two stages. Notably, I differentiated between the initial step of content analysis of observational, interview and chart review data, and the subsequent thematic analysis of the data overall. The first stage was based on a process of open coding and memoing, wherein data was coded line-by-line without reference to a priori theoretical assumptions. The researcher's goal at this stage "should be to generate as many codes as possible, at least initially, without considering possible relevance either to established concepts in one's discipline or to a primary theoretical focus" (Emerson, Fretz, & Shaw, 1995, p. 152). Thus, the process of open coding helped to avoid imposing my own biases into the process of analysis. Through the process of open coding, patterns and core themes began to emerge from the data.

During the second stage of analysis I began to integrate the data from various sources by linking together the core themes and integrating the findings that had emerged through content analysis of each of the different parts of the data set, as common over-arching themes emerged. I examined the data using the three dimensions of continuity of care (Reid et al., 2002) as a guide to analysis (see Appendix G). The selection of major themes was guided by the purpose and objectives of the research explicated in Chapter One, by the conceptual underpinnings of this research, presented in Chapter Two, and by the relevant literature that was critiqued in Chapter Three. These analytic strategies enabled a focused thematic interpretation of the data set as a whole and allowed me to make sense of the large amount of data I had. Thus, there were two levels of analysis. Each dimension of the data set was first analyzed independently using content analysis, and was subsequently interpreted in

conjunction with the findings that emerged from each other dimension of the data set. At a second, and higher level of analysis, qualitative data from the overall research process were analyzed thematically in conjunction with the findings of the quantitative data analysis. Different levels of analysis were not viewed as discrete linear analytical events, but as an iterative and ongoing development of ideas (see Appendix C).

Validity

Fetterman (1998) claimed that triangulation is "at the heart of ethnographic validity" (p. 495). Stake (2000) similarly describes triangulation as key to instilling confidence in the results of qualitative research: "Triangulation has been generally considered a process of using multiple perceptions to clarify meaning, verifying the repeatability of an observation or interpretation" (p. 443). By encompassing multiple sources of data and diverse data collection strategies, this research incorporated triangulation strategies that contributed to confidence in the validity of study findings.

Trustworthiness or credibility in the data in qualitative research is fostered through two main strategies. One of these is the collection of, "rich" data, or "data that are detailed and complete enough that they provide a full and revealing picture of what is going on" (Maxwell, 1998, p. 94). Through "thick" description, rich data provide a sufficiently comprehensive view of the research phenomena to allow the emergence of contrary data, or data that challenges the researcher's assumptions, biases and theories (Maxwell). Rich data therefore "tests" (p. 94) the credibility of the research by forcing the researcher to examine his or her biases and pre-conceived ideas about the phenomena of interest in the light of what is actually found in the data. The ethnographic data collection strategies that were used in this study resulted in the accumulation of thick description and rich data.

The second main strategy for increasing the trustworthiness of qualitative research is through auditability of the research process. The purpose of an "audit trail [is] to clearly document the researcher's decisions, choices, and insights" (Morse & Field, 1995, p. 144), that is, to make the research process transparent. The process of recording and memoing fieldnotes offered a strategy to maintain a clear and transparent audit trail. Keeping a reflective journal of my thoughts and insights as the researcher, and of my perceptions of my own influence on the research process, was another strategy for maintaining an auditable record.

The work of writing reflectively as an adjunct to writing field notes offered a space in which to explore my own pre-existing biases and assumptions as these emerged during the research process, and was an important piece of the "audit trail". In this way, biases, assumptions or "blind spots" were made explicit, which Fetterman (1998) suggested was a way of "mitigating the negative effects of bias" (p. 473). Additionally, reflexively engaging with the data during the process of writing field notes was a strategy that allowed me to situate myself in relation to the data, so it became transparent not only how my perspectives shaped the data, but also how as the researcher, my perspectives were shaped through my engagement with the research process (Emerson et al., 1995). Thus, reflexivity was key to the credibility of negotiated and mediated meanings that I aimed to construct and have represented as research findings (Emerson et al.).

While this research was conducted in a study site that was selected in part because it was considered to be typical of Nursing Stations in remote aboriginal communities generally, it was not the intention of this study to be able to generalize research findings per se to other settings. However, through developing a better understanding of how nurses in primary care

influenced patient health outcomes and continuity of care in the study site, I expect this study will contribute to our knowledge of how health services are delivered in similar settings.

Ethical Considerations

This research was guided by the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans, and in particular by Section 6, Research Involving Aboriginal Peoples (CIHR, Natural Sciences and Engineering Research Council of Canada, Social Sciences and Humanities Research Council of Canada, 1998).²¹ Prior to commencing this study, ethical approval was obtained from the Behavioural Research Ethics Board, Office of Research Services, at the University of British Columbia (see Appendix H). Approval to conduct the research in the study site was obtained from the appropriate stakeholders at the regional and facility levels, as well as from the Band council on behalf of the community.

Confidentiality and anonymity of all individual participants has been maintained. Data collected from patient charts was collected using coded identifiers that were known and accessible only to myself as the researcher. Identifiers that might link individuals to chart information were maintained until the completion of data analysis, at which time this information was destroyed. Anonymity of the study site and the community has been maintained to safeguard the anonymity of individuals employed or associated with the study site.

In general, the following specific measures were employed to ensure that ethical standards and integrity were upheld: (a) written informed consent was obtained from each individual directly involved in direct observation and / or interviews (see Appendix I); (b) participants understood that their participation in the study was voluntary and they

²¹ As of October 2005, the CIHR Guidelines for Health Research Involving Aboriginal Peoples have been made available as a draft for consultation. The finalization and adoption of these guidelines within the Tri-Council Policy Statement is expected to occur by Fall 2006 (CIHR, 2005).

understood that they could choose to decline to participate or withdraw from the study at any point; (c) no information was collected to be used as data that could be used to identify individual participants; and (d) any tape recordings or records that might link individual identities to the study will be stored in a secured location during and following the study and will be destroyed at the conclusion of the research.

Summary

An ethnographic method supported the use of a mixed methods strategy, or a variety of data collection strategies and perspectives, which were essential to providing a multifaceted and contextualized picture of health outcomes and continuity of care in the study site. Data were collected through observations in the clinical setting, and formal and informal interviews with health professionals, patients and para-professional staff in the Nursing Station. Relevant documents, photographs and artefacts were also collected as data. Quantitative data related to clinical health outcomes were abstracted through retrospective chart review. Data abstraction was based on two health indicator conditions: prenatal care and care of infants through the first 12 months.

CHAPTER FIVE

THE CONTEXT AND STRUCTURE OF NURSES' WORK: WORKING AT THE MARGINS

Introduction to the Research Findings

The research findings are presented in four chapters that are organized in terms of (a) the context and structure of nurses' work (b) health outcomes and continuity of care, (c) the process of nursing care, and (d) the intersection of context and structure, process and outcomes. Maintaining a primary focus on continuity of patient care, the interpretation of the findings presented in each chapter builds on the data and interpretative insights presented in the previous chapter(s), fostering increasingly abstract levels of interpretation.

I begin this chapter with a short introduction to the study site community, based on my field observations and Statistics Canada demographic data, followed by an interpretation of the data related to the context of the broader community. The second part of this chapter describes specific aspects of the context and structure of health services organization and nurses' work in the study site. The interpretations presented in Chapters Five through Eight are grounded in data collected through the data collection strategies as described in Chapter Four.

Stepping into the Community: First Impressions

The community of Snowy Lake is located in northern Manitoba, situated between one and two hours' flying time north of Winnipeg.²² Snowy Lake is accessible year-round by air, and by an ice-road for several weeks during the winter. Two commercial air companies provide at least daily scheduled air service between Snowy Lake and the closest larger service centre. A handful of neighbouring First Nations communities are accessible by water during the summer or by snowmobile during the winter months, allowing families and friends to visit between these communities.

Flying into Snowy Lake on a clear day reveals the extent to which the community is surrounded and isolated by water. The flat landscape below is a myriad of green, densely wooded patches of land surrounded by blue lakes and rivers; at times it is impossible to

²² Snowy Lake is a pseudonym. Specific details about the study site have been omitted or disguised to protect anonymity of the community and of the individuals who participated in the study.

discern between larger islands and the "mainland". No roads or buildings or rising smoke, nor any other signs of human habitation interrupt the pristine views that pass below, until finally the sun glints silvery off something in the distance. As the plane approaches, the glint grows into a string of buildings lining a point of land. The plane banks and turns, and across the water a second small patch of buildings appears. A few tiny boats trace white wakes across the water as we circle the airstrip to land, and a plume of yellow dust races a vehicle along the one road. This is Snowy Lake, and Snowy Lake could be any one of several northern Canadian communities.

Like many northern First Nations communities, Snowy Lake is a divided community. The airstrip, Royal Canadian Mounted Police (RCMP), Northern Store and a handful of residences are located on one side of a body of water, while the reserve (where the Nursing Station is located) is on the other. Thus the commute between the airstrip and the Nursing Station involves crossing either by boat (in the summer) or by snowmobile or vehicle (after the ice has formed). The crossing takes just a few minutes, a bridge could easily span the distance, but a short drive through each of the two adjacent communities reveals that more than water separates them.

The majority of residents are First Nations people who live on the reserved Indian lands. The reserve land of the Snowy Lake First Nation is an area of less than 50 square kilometres. While most nurses and teachers live in housing provided on the reserve, a handful of non-aboriginal residents live off reserve. Non-aboriginal residents are generally temporary, and have come to the community specifically to provide services such as nursing, teaching, policing or managing the local Northern Store. Less than 1% of the population of Snowy Lake identified as being non-aboriginal in the 2001 census (Statistics Canada, 2001). Much of this 1% lives together, segregated on one side of the water (the side where most of the services and resources are located), while the majority of the population lives on the far side, the "reserve side".

The weather and the march of seasons dictate much of life in Snowy Lake. The community is located north of 53° latitude (for comparison, Prince George and Edmonton are between 53-54° N), in the taiga, or northern forests. The forest surrounds Snowy Lake, creeping up close and silent around the houses. The climate is characterized by short, cold, humid summers and long, cold, snowy winters. Freeze-up occurs about November each year, and break-up is usually in late spring. For five or six months of the year snow covers the landscape and the daily temperature rarely inches past freezing. Winter temperatures regularly drop to minus 40° C., while average summer temperatures seldom reach 20° C., and other than in July and August, frost may occur on any night of the year (Environment Canada, 2005).

Despite daily scheduled flights, transportation in and out of the community is often tenuous. Flights are sometimes "weathered out", meaning that weather conditions prevent flights from landing. High winds, storms, blizzards, fog and extreme low temperatures may preclude flying on any given day. The ice-road too is dependent on weather conditions. Some winters the ice isn't thick enough to support vehicular traffic across the lakes, or if freeze-up is late or spring thaw arrives early, the ice-road may be open for just a few weeks. Freeze-up and break-up, as in other northern communities, present particular challenges to transportation within the community, as for a week or two each fall and again in the spring, the ice is too thick to permit boat traffic, yet not thick enough to allow people, snowmobiles or vehicles to safely cross. Freeze-up and break-up have the tendency to leave southerners indignant at nature's power to effectively strand an entire community for a week or two each fall and spring: "in this day and age!" But the locals take it in stride, uncomplaining; it is just part of the pace of life in Snowy Lake.

The First Nations population of Snowy Lake numbers between 2-3,000 people. At the time of the 2001 census, the median age of residents was about 18 years old, and over 40% of the population were younger than 15 years (Statistics Canada, 2001). Only 3.5% of the population were aged 65 years and older. Traditionally, the people of Snowy Lake found their living in hunting and fishing, and in the post-contact era, in the fur trade. Many families continue to rely on hunting and fishing to supplement store-bought foods, and a few individuals continue to trap. Fewer than 10% of the population have fulltime, year-round employment and the unemployment rate hovers around 30%, about five times higher than the overall Manitoba unemployment rate of 6% (Statistics Canada). In 2001 the median average income of all Snowy Lake residents aged 15 years and older was less than \$9500, compared to more than \$12,400 for Manitoba residents overall (Statistics Canada). Close to 40% of income earned in Snowy Lake was government transfer payments (i.e., paid out largely as social assistance dispersed by local Band administration), versus 23% for the rest of Manitoba (Statistics Canada). In contrast, the average earnings of all persons who had earned employment income was about \$18,600, compared to \$19,200 for Manitoba overall.

The Band is the largest employer in the community and administers nearly all jobs on the reserve. For example, other than the Nursing Station nurses, who are federal employees, all of the Nursing Station staff (including the public health and home care nurses) are Band employees, as are the social services staff and the teachers.

The Band administration forms the local governing body. Band members elect the Chief and several council members. The Band operates the schools, a local Band constabulary, most social services, and most other community services. Any programs within the community require the permission of the Band administration. Band chiefs and councils wield legal powers beyond that of off-reserve municipal authorities; for instance, Band chiefs and councils have the authority to order searches (i.e., for contraband drugs or alcohol), enforce curfews, or deport undesirable non-Band members from the community.

Snowy Lake has both an elementary school and a high school up to grade 12. Less than 2% of Snowy Lake residents have completed high school. About 6% of men over age 25 have completed high school, compared to only 4% of women (Statistics Canada, 2001). However, while no men aged 25 and older held a university degree at a bachelor's level or higher, 2.7% of women had obtained that degree (Statistics Canada). Ninety-seven percent of Snowy Lake residents who identified as First Nations spoke a First Nations language at home, and 95% identified that language as their first language (Statistics Canada).

At the time of the 2001 census, there were fewer than 500 houses in Snowy Lake. All but a few houses on the reserve were owned by the Band and were provided to families at no charge, although families were expected to pay for heating and hydro costs. A small number of newer houses are available to residents as rentals. Houses are similar to houses on reserves across Canada: usually small (2 bedrooms, 1 bathroom) bungalows built either on a slab or off the ground. The 2001 census identified that more than 50% of the dwellings in Snowy Lake were more than 14 years old, over 40% were in need of minor repairs, and over 30% were in need of major repairs (Statistics Canada, 2001). Health Canada (2003) defines "adequate housing" as "housing units that do not require any minor or major renovations or replacement" (p. 65). In 1999, only 56.9% of First Nations on-reserve houses were considered adequate (FNIHB), suggesting that fewer adequate housing units exist in Snowy Lake than in most other reserve communities. Moreover, the 2001 census identified

approximately 25 more families in Snowy Lake than there were houses, suggesting that more than one family often shared a house. Significantly, the average family included 5 members (Statistics Canada). Overcrowded housing is recognized as a problem in First Nations reserve communities generally (FNIHB).

There is an arena in Snowy Lake but few other recreational facilities, although the school gyms are sometimes opened for activities and events. Notably, the arena was closed and awaiting renovations during the study period. There is no theatre, no pool, no mall and no Internet café. Tim Hortons'®, the trademark of rural Canada, is notably absent. A local television station scrolls community events, and a local radio broadcasts in the local language. Local residents make do with dial-up Internet access via ancient telephone lines that are subject to debilitating static. There are both a Catholic and a Protestant church on the reserve; the majority of residents are Protestant (Statistics Canada, 2001). Bingo is an important part of community life, as in other First Nations communities. Snowy Lake is a "dry" community, meaning that alcohol is not permitted on the reserve, although off reserve residents who are not Band members are permitted to bring in alcohol for personal use. Thus residents of the off-reserve community may enjoy alcoholic beverages at home and at social events while on-reserve homes and events are "dry".

The few roads are unpaved and alternate between thick yellow dust, slick mud gumbo or ice, depending on the weather. There are no sidewalks or shoulders to walk on, and the uneven footing makes walking along the roads risky, yet walking is the common mode of transportation for many people. Vehicles can be driven into Snowy Lake over the winter road, but the ungraded roads, mud and potholes, and the lack of resources to maintain vehicles ensures that vehicles have short and generally unhappy lives. Abandoned vehicles litter yards and road edges, left to rust where they died.

This is Snowy Lake, and Snowy Lake could be any one of many communities in northern Canada.

It's a Different World Here

At first glance Snowy Lake might appear to many newcomers new to the "the north" as a somewhat rustic northern community, intriguingly quaint and isolated and in some ways attractive by virtue of being a new and different experience. On arrival, nurses and other health care providers are taken directly to the Nursing Station residence, where they are settled into living quarters that are comparable in most ways to their living situation at home: suites are private (or semi-private), have central heating, running water, hot showers, laundry facilities, stoves, microwaves and satellite television. Nurses experience living conditions that are substantially better than those experienced by most community members, and at least initially, nurses tend to be isolated from the harsh reality of the housing conditions and poverty that prevail in the community.

Despite being insulated to some degree by living and work conditions that took place within the "protected bubble" of the Nursing Station environment, most nurses eventually encountered the reality of the surrounding environment. This is an environment drastically different to the environment to which most nurses were accustomed. It is an environment hallmarked by poverty, inadequate housing, a lack of resources that are taken for granted in most other Canadian communities, and profound health and social issues.

While most of the nurses who participated in this study had received a three weeks' employment orientation that included an introduction to the isolation and the different environment they could expect to find when they arrived in the community, most felt nevertheless unprepared for the reality: "nothing prepares you for the reality of it". Many social issues became apparent just by taking a drive around the community. However, since opportunities for nurses to get out into the community were limited, they sometimes spent a considerable time in northern communities before they really became aware of the prevailing social conditions. One nurse, who had been working as a relief nurse in the region for the past year, had been introduced to the realities of life in the community only shortly before I interviewed her. Her reaction revealed her struggle to come to grips with an unfamiliar context and the inequity it implied: "it just was amazing to me that in this day and age, this is like a third world country here, there's no running water, I mean I cannot believe it. I think it's disgusting, atrocious". Sub-standard housing conditions, the lack of running water, transportation and the high cost of food and supplies were among the broad contextual issues that were raised repeatedly by all participants. One First Nations participant (a CHR) summed up these issues in an interview:

We're faced with 3rd world conditions here, we are surrounded by water but still we have no running water, more than 50% are without running water. The majority of the people get their water from these pipe stands that you see on reserves and during the winter time it's very inconvenient because most of those water lines are frozen. Most people don't have a vehicle. [Families on welfare] only get income once a month and that's their welfare, and their welfare has to stretch for the whole month. Sometimes the winters get really harsh and they have economic problems, so that they can't keep up financially.

From the nurses' perspective, access to the local Northern Store was problematic, given the hours they were expected to work in the Nursing Station and be "on-call" afterhours. This was an obstacle that some nurses had not been prepared for prior to arriving in the community. Most nurses brought some food supplies into the community with them, especially if they were staying for a shorter time, but if they needed to replenish their supplies locally, they experienced first-hand the challenges faced by local community members both in accessing the store and the high costs of purchasing items in the community. One nurse described local costs as "exorbitant". My field observations substantiated the high cost of buying basic needs items in the community; for example, a trip to the community Northern Store revealed a case of 12 tins of infant formula cost \$58 (compared to \$26 for the same case in an urban centre), \$35 for a box of disposable diapers (less than \$20 in an urban centre), and \$25 for a box of laundry soap (about \$8 in an urban centre). Transportation to the store (either in a small open boat with no life jackets on board, or across the ice) was also costly and inconvenient, as well as potentially treacherous. Thus the simple, taken-for-granted chore of purchasing needed items at the local store entailed an inequitable degree of hardship that would be considered unacceptable in most Canadian communities. In seemingly minor, every-day tasks of living both community residents and nurses experienced marginalization.

While non-aboriginal health care professionals developed an appreciation for the challenges of everyday life in the community, it was the First Nations health care professionals and para-professionals whose own social location and lived experiences as community members allowed them to express most eloquently the impact these challenges had on the day-to-day life of community members. Non-aboriginal professionals may have lacked the same depth of appreciation in part because they seldom went into homes in the community. Of the non-aboriginal health care professionals who participated in this study, only two or three could recall having ever made visits into homes on a reserve. This finding was in contrast to established or traditional nursing practice in FNIHB Nursing Stations, where home visiting has long been an expectation of the nursing role. Home visiting has traditionally exposed nurses to social and economic conditions in the local community. Thus, while non-aboriginal nurses understood from their own perspective that social conditions presented challenges, they remained largely unaware of the full extent of the implications these same challenges posed to community members who lived in less privileged circumstances. As one First Nations nurse described in an interview:

The life is very difficult here. Running water and heat are big factors, in the morning especially because they have to make a fire to warm up the house in the morning; sometimes when you go into the home early in the morning, they're in bed just so they can stay warm. In some of these homes their water is frozen, so then they have to build a fire and melt the water so they can wash up. There's two or three families living in one three-bedroom house. There's grandparents and their grown up kids and then their kids, there's little babies running around and those are the great grand children in that home. People don't eat properly only because they're on a budget, on welfare. There's no running water so therefore hygiene is a factor. It's very difficult, like, I don't want to be mean or anything but that's just how people live, like some of them don't even change their clothes for a week, for example, only because they don't have any [water], how would they wash clothes? You need lots of water to wash your clothes, they don't have dryers at home, they don't have towels to wash with, things like that. Their priority is to buy food.

For the most part both First Nations and non-aboriginal health professionals recognized the essential social inequity that local living conditions represented: "it's still not up to the same standard as the rest of the country", and "the living standards are not the same as in the city". Health care providers in general also articulated an appreciation of the relationship between inequitable social conditions and marginalized health. In response to my question asking nurses what they viewed as the major health issues in the community, most indicated an appreciation of the relationship between health and the social determinants of health that were rooted in the context of the community. For example, the lack of running water, of adequate housing, recreational facilities, and healthy nutritional choices at the local store, were all identified as contributing to poor health or unhealthy lifestyle "choices". However, not all nurses demonstrated this appreciation, nor did all nurses comprehend the influence of the social determinants of health to the same degree or on a consistent basis.

For non-aboriginal health care professionals, there was a certain paradoxical quality to living and working in the different world of the First Nations community. The paradox was based in the circumstance that non-aboriginal health care professionals lived in two worlds in the community: the familiar world of the Nursing Station, and the unfamiliar world of the surrounding community. These professionals came to grips on a daily basis with the realities imposed by the broader community context, yet they lived and socialized for the most part in a world that was in some ways not very different from their lives in mainstream Canadian society. The paradox existed because these non-aboriginal health care professionals were not really a part of the community or of the *other* world they associated with the community; the local community was not really *their* world. This is part of the paradox of outpost nursing that Hodgson described in 1982, and while her work first drew attention to the contextual issues that created the paradox more than 20 years ago, little has changed since

that time. For example, a seemingly insignificant observation that struck me, as a researcher, as singularly representative of the paradoxical world that non-aboriginal heath care professionals inhabited was finding workmen planting a lawn²³ in front of the nurses' residence. Landscaping the nurses' residence in a community that was typified by many local residents and health care providers as "third world" illustrated a quintessentially post-colonial dynamic that in turn illustrated the perpetuation of inequity and marginalization within the community.

The paradox that nurses experienced in living and working in the different world of the First Nations community allowed nurses to maintain a distance between themselves and the gritty reality they encountered in the clinic and out in the community. This distance between nurses and the community created space for nurses, physicians and other visiting health professionals to remain disconnected from the broader context and disengaged from patients' lives, and ultimately contributed to incongruence between reality and some professionals' perceptions of health and health services. Thus fragmentation and discontinuity were rooted in the historical and socio-political fabric of aboriginal health. Nurses were employed in a community-based nursing role, yet lived and worked within the "protective bubble" of the Nursing Station and nurses' residence that isolated and insulated them from the surrounding community. This paradox is key to understanding the interpretation of findings presented here.

The Local Context of Health Services: Structure and Infrastructure

Responsibilities for health services in the study site community were shared between FNIHB and the local Band government. FNIHB maintained responsibility for the Nursing

²³ Most homes in the community did not have a lawn, although in contrast, several homes in the off-reserve area did have lawns, gardens and in some cases, were fenced.

Station and direct authority over the services that were provided from the Nursing Station, which included nursing, medical and dental services. During the data collection period three of the seven full-time nursing positions were filled by permanent FNIHB employees, and the other four positions were staffed by "relief" nurses for varying lengths of time, from a few days to two months. Relief nurses were usually employed by FNIHB on a casual basis, although occasionally were contracted by FNIHB through a nursing agency. Medical and dental service providers were also contracted by FNIHB (both a physician and a dentist were in the community for several days each week). However, most of the para-professional Nursing Station staff were employed by the Band under the health transfer agreement with FNIHB. Band-employed auxiliary staff included clerical, housekeeping and maintenance staff, as well as the Community Health Representatives (CHRs), who worked more directly with the nurses as health care providers and medical interpreters.

The Nursing Station was directly supervised by the Nurse-in-Charge (NIC), who was a FNIHB employee, and administered by an administrator who was Band-employed. The NIC reported through the Zone Nursing Officer (ZNO) to upper-level FNIHB management, while the administrator reported to Band and Council through the Band-employed Health Director. Thus there were two lines of authority within the Nursing Station, and the two groups of employees experienced different conditions of work. For example, Band-employed workers sometimes received extra time off with pay (e.g., for local holidays) that FNIHB employees weren't entitled to. Both employees and managers were at times unclear as to who was responsible for particular aspects of work or for particular employees, for example, one participant who worked in an administrative role stated: "they have their own supervisor, I tell the supervisor that this is what they should be doing and if it doesn't come to that, I'll have to speak with them... I have to intervene sometimes". Differences in working

conditions and reporting lines fed into a perception of difference or inequity between the two groups of employees, and sometimes to tensions. This kind of tension and fragmentation of health services started within the Nursing Station itself and created a ripple effect that spread through the different agencies that ostensibly worked in collaboration with the Nursing Station to provide health services in the community.

Several aspects of health and social services delivered within the community had been transferred to the Band. Transferred services included the Home Care and Mental Health programs, as well as a variety of programs such as the Native Alcohol and Drug Abuse Prevention Program (NADAP) and social and family services. About a year prior to data collection for this study, the Public Health services had also been transferred to the Band. This transfer enabled the Band to employ a Public Health Nurse, who was responsible for the "public health" programs (i.e., immunizations, infectious disease control) previously provided by nurses working in the Nursing Station. The Public Health nurse and public health services were located in the same building as the Nursing Station. However, as a Band employee, the Public Health nurse was not under the supervision of the Nurse-in-Charge, but reported to the Health Director. While some of the auxiliary staff who worked in the Public Health unit were under the supervision of the Public Health nurse, others were under the supervision of the administrator, and some (e.g., the CHRs) also at times and in certain situations worked under the supervision of the NIC or the Nursing Station nurses. Thus, lines of communication, reporting and responsibility within the Public Health unit and between the Public Health unit and the Nursing Station tended to be ambiguous and further contributed to fragmentation within health services in the study site community.

The Band-administered health and social service programs were health resources within the community. For example, nutritional counseling, diabetic teaching and home care

were some of the available programs, yet access to and utilization of these resources was a source of contention and tension between the different groups of health service professionals. Health care providers in the public health area (e.g., public health and home care nurses) perceived that nurses and physicians in the Nursing Station failed to take advantage of the available Band-administered resources: "I don't think that the Nursing Station utilizes the resources that we have down here... it's unfortunate that Nursing Station staff [have been slow] to clue into what valuable resources we have and make referrals appropriately". Field observations supported the perceptions of public health workers and suggested that nurses in the Nursing Station were in fact sometimes unaware of either the range of available resources, or of their own role in the referral process. In contrast, nurses working in the Nursing Station perceived that the Band-administered resources were either not readily available or that referrals were not followed through on, or not followed through on in a timely fashion. Data from review of patient charts suggested that follow-through on referrals might have been inconsistent, as the following excerpt, recorded as a contextual note during a chart review, illustrated:

19 year-old multip. Glucose tolerance test at 12 weeks revealed diabetes. Referred to [nutritionist] for diabetic counseling at that time, referral from RN on chart. This was followed up appropriately on 3 subsequent visits, and each time it was discovered that the patient had not yet received diabetic teaching. The intervention in each instance was to re-refer the patient. It appears that the patient reached at least 26 weeks with "no knowledge of diabetes", and there is no evidence that diabetic teaching ever occurred. Delivered an infant greater than 4000 grams.

Thus the utilization and availability of resources was a factor that influenced continuity of patient care. Resource use was compromised by fragmentation of health services that began with organizational and structural ambiguities that contributed to perceptions of difference and inequity between Band-employed health care providers and FNIHB-employed nurses. Perceptions, misperceptions or assumptions that resources were accessed inappropriately, were devalued, or that resources were unavailable when needed, created tension between Nursing Station and Public Health nurses. The lack of clear and unambiguous lines of communication and responsibility to support clarification of these issues was a source of inter-agency discord. Failure to clarify and resolve these issues contributed to conflict and further fragmentation between health services within the community.

These tensions and conflicts were often not apparent on the surface, and in fact, both interpersonal and inter-agency relationships among professionals within the community were visibly collegial and congenial. Tensions and conflict that contributed to fragmentation of services were more often enacted covertly and at the individual level. The discourse of non-aboriginal participants suggested a subtle devaluing of Band-administered health resources, a variation on *othering* practices (Johnson et al., 2004) that may inadvertently propagate inequitable power dynamics between groups and in consequence, lead to "marginalization, decreased opportunities and exclusion" (p. 254). For example, a field note recorded the following observation during nurses' morning report:

There was then some discussion about community resources (which I asked about) but the ANIC [Acting Nurse in Charge] more or less shrugged her shoulders and said the Band-run community health services had a Mental Health Worker, "if you could get hold of her". These services seem to be considered a write-off [by the nurses]; my impression is that there is not a lot of interaction / collaboration between US and THEM.

Thus, othering practices were reflective of the "other world" of the local community that non-aboriginal health care professionals perceived as being different to their own world. The concept of othering both reflected and contributed to the finding that nurses worked at the margins within the context of health services in the community.

It's a Demanding Job: Contextual and Structural Issues that Influenced Nurses' Practice

Although several issues embedded within the broad context and local structure of health services delivery influenced nurses' practice and their ability to influence continuity of patient care and health outcomes, two issues emerged as paramount. These two issues in particular influenced both nurses' practice and their effectiveness in influencing continuity of care. The first of these influences had to do with the high rate of turnover among nursing staff in the Nursing Station and related issues regarding nursing workload. The second influence was related to nurses' preparation to work within the community context and in the expanded and advanced nursing role that was expected of them.

Compared to nurses working in mainstream health services in other Canadian communities, nurses working in the Nursing Station experienced inequitable working and social conditions as well as limited access to resources. Nurses worked at the margins of mainstream nursing practice, expected to function outside the traditional scope of nursing practice, yet often were without work-role preparation comparable to that of nurses prepared for out-of-scope practice in other settings, such as nurse practitioners. Thus, inequity and marginalization were reflected within nurses' preparation for practice, and exerted a strong influence on nurses' ability to engage with practice, posing particular issues and challenges for nurses. Moreover, nurses' preparedness for the role and the context of their practice directly influenced how effectively nurses managed workload issues, thus the interrelationship between the two factors also exerted a synergistic influence on continuity of care.

Being Too Busy: High Nursing Turnover and Working Short Staffed

An underlying assumption of this research was that there would be a high turnover rate of nursing staff at the study site and that the Nursing Station would be short of nursing staff at least on an intermittent basis. This assumption was based on the literature (Kulig et al., 2003; Martin & Gregory, 1996; Minore et al., 2002; Vukic & Keddy, 2002), on my own clinical experience in similar sites, and on anecdotal evidence from nurses with similar experience. The findings of this study supported this assumption.

There can be no question that the study site experienced a high rate of nursing staff turnover. Using the monthly staffing sheets I counted the number of different nurses who had worked in the Nursing Station in the two-year study period covered by the chart review. The total numbered 73 nurses. There had been a stable core of two to three nurses through most of that period, but the remaining nursing positions had been filled by a constant stream of nurses who came to work in the community on a temporary basis, for anywhere from a few days to several months.

To illustrate the rate of turnover, there was a turnover of six nurses in the four weeks between my first and second visits to the study site to conduct data collection. From my perspective as a researcher, this was problematic in that I had to "orientate" six new nurses to my research, which involved finding time when the nurses were not busy to explain the study to them, to achieve "buy-in" and to obtain informed consents. Minore et al. (2002) described a similar experience during their research in remote First Nations communities in northern Ontario. Later, when a participant stated "I can understand why [patients] get frustrated when they come into the Nursing Station and it's another nurse they have to tell the same story to", I realized that my own sense of frustration with the high rate of nursing turnover reflected the frustration patients felt when continually faced with seeing unfamiliar health care

professionals. Patients in the study site potentially were faced with seeing a new and unfamiliar nurse at each health care visit. Thus, the high rate of nursing staff turnover had a direct influence on relational, or interpersonal continuity of care (Reid et al., 2002) in the study site.

All participants were highly aware of the high turnover of nursing staff. One nurse stated, "changeover is huge, um, - huge. I don't really know how else to say that but, you know, there aren't a lot of us that have been around for any length of time". A physician told me that three years was a long time for a provider to remain in a community, while a nurse agreed that four years' conferred "old-timer" status. A nurse who had worked intermittently in northern communities for 19 years estimated the longest time she had spent in one community had been six or eight months, illustrating the relative transience of nurses working in the north.

The Nursing Station was officially a nine-nurse station until the year prior to data collection for this study, when staffing was decreased by one position, leaving eight Nursing Station positions. At about the same time, the Band-transferred public health nursing position was created. It was commonly believed in the Nursing Station that the public health position had been created at the expense of the Nursing Station position. However, findings suggested that confusion existed among health professionals and para-professional staff in the study site as to the number of nurses that constituted "full" staffing for the community. This confusion was an important aspect of tension and conflict between nurses in the Nursing Station and public health.

Regardless of the official quota of nurses, the Nursing Station was seldom fully staffed: "usually we're running at five or six nurses". Health professionals and administrators perceived a close association between the high turnover of nursing staff and the chronically

short staffing levels in the Nursing Station. Working short staffed implied that nurses' workload was increased, since patient demand for health care remained constant. Not only did each nurse have to see more patients during regular clinic hours (which might necessitate overtime work), but each nurse also carried a greater responsibility for taking after-hours call for emergency services. Several nurses estimated they worked between 50 and 60 hours a week. Being on-call during the night meant that nurses might be awakened several times during the night, or might be up all night attending to a patient, yet nurses were expected to work the following day despite having worked during the night. During the data collection period I observed that the nurse on-call literally never had an uninterrupted nights' sleep; "call" was very busy in the study site.

The high turnover rate of nurses and being short-staffed contributed to nurses' perception that they were "too" busy. The increased workload that resulted from being short staffed was perceived as one reason for the high turnover rate among nurses, thus short staffing and "being too busy" contributed to the high turnover rate, and the high turnover rate in turn, exacerbated the staffing situation and created an increased nursing workload. Being too busy meant that nurses had to work harder to "catch up" with the work of providing patient care. As data from the chart review, observations and interviews showed, when nurses were too busy to keep up with patient care needs, patient care suffered and patients were at risk of "slipping through the cracks", or of experiencing fragmented care, particularly the dimensions of informational and management continuity of patient care. Being too busy and working to catch up were in part the process manifestations of the structural and organizational issues of being short-staffed and the high rate of staff turnover. These larger organizational issues shaped the context of the work environment and were therefore central

to the theme of nurses' being too busy. However, they were not the only issues that contributed to nurses' busyness.

In common with health care providers in Nursing Stations generally, participants in this study referred to illness-oriented patient care as "treatment". Treatment-oriented services (e.g., Health Canada, 2001d) were differentiated from preventive health services and health promotion activities, which were referred to collectively as "public health" (e.g., Health Canada, 2001c). Treatment included primary care for common episodic health problems (e.g., "colds", headaches) and chronic health conditions (e.g., hypertension, diabetes) as well as for urgent and emergent problems (e.g., trauma, chest pain). Public health programs included maternal-newborn follow-up, well child assessments, immunization programs, school health programs, infectious disease reporting and follow-up, chronic health programs (e.g., diabetes education) and (to some extent) follow-up of chronic conditions, and prenatal education classes. Historically, as the only health care providers in the community, nurses employed in Nursing Station settings have been responsible for both the treatment and public health aspects of health services in remote aboriginal communities. "Community Health Nurse" continues to be the formal position title used by FNIHB and the territorial employers of Nursing Station nurses, reflecting the community health basis of the role. In the study site, the creation of a Band-transferred public health nursing position at about the same time as Nursing Station staffing had been decreased was the source of some confusion among nurses in the Nursing Station, as questions of their continuing responsibility for certain aspects of the public health role were unclear to nurses. However, role confusion related to the public health responsibilities of nurses working in the Nursing Station had also existed prior to the implementation of a Band-employed public health nurse.

When nurses were challenged to keep up with the nursing workload, it was the preventive and public health programs that suffered, as nurses' energies were necessarily taken up meeting the more pressing needs of patients that required urgent and emergent services. One nurse stated, "You get overwhelmed and the focus is more on the emergent stuff. It shouldn't be but what do you do when they're knocking on your door". For example, nurses had discontinued making maternal-newborn home visits several years prior to the study time, because in the words of one nurse, "there was no staff to go out and visit". The more urgent necessity of providing treatment services had become the priority that shaped nurses' work in the study site. Some new nurses coming into this setting, who were unfamiliar with the comprehensive, dualistic nature of Nursing Station work perceived the prioritizing of treatment services as diminishing the public health aspects of the role. This resulted in a devaluing of the public health aspects of the role among nurses employed in the Nursing Station and contributed to nurses' role confusion. One nurse participant who had worked in both public health and in the Nursing Station described this devaluing: "some of the [Nursing Station] nurses think that it's just fun and games kind of thing in the public health side, like there's no real work that has to be done". The data that suggested the existence of role confusion is explored further in Chapter Seven.

Being too busy and focusing on urgent and emergent patient care at the expense of preventive health programs placed nurses in a perpetual loop of "falling behind" and needing to "catch up". Participants spoke of falling behind and needing to catch up on programs, on organization, on administrative work, and especially on immunizations: "It's very busy down here and we're very far behind so there's a lot of catch-up to do". Some Nursing Station nurses viewed the implementation of a public health nursing position as a panacea to the problem of catching-up, in that public health was to "take over" the immunization programs.

However, Nursing Station nurses were unclear what their continuing role was in providing immunizations in the new order; some nurses working in the Nursing Station perceived that immunization was no longer part of their responsibility. According to one informant, the public health nurse would also become responsible for the school health and the infectious disease programs (e.g., STD follow-up). Perhaps reflective of the work-related tensions that existed between some of the Nursing Station and public health nurses, it was unclear how the expectation could be realized that one public health nurse would be capable of taking over the time-consuming public health programs (all of which had fallen behind and therefore required catching up), that a complement of nine Nursing Station nurses had found "overwhelming".

Both professional and para-professional participants identified additional reasons that they perceived helped to explain the high turnover – short staffing cycle. Explanations included a perceived lack of support within the larger organization: "typically [FNIHB] hasn't been an organization that's treated people very well", as well as a perceived lack of support within the community. A physician described this by saying that some people in the community "didn't understand" that the high demand for non-emergent services during the night was one reason there were often not enough nurses in the community. During an interview, a nurse participant also described lack of support within the community in terms of behaviour toward nurses that was perceived as abusive:

I think every nurse has [experienced] situations of abuse whether it be, you know, physical, verbal or just emotional or whatever but I think it's increased up here. I think there's a lot of expectation from the community that we're here to, you know, to be at their beck and call and I think when you're here around the clock and sometimes you're forced to work the long hours and there's not a lot of support, you just kind of burn yourself out, so I think that's why there's such a high turnover up here.

With this statement, this participant linked non-support within the larger organization with a lack of support from the community, and suggested that nurses might be caught in the middle of the sort of political situation that at times may exist in communities between Band and federal government agencies. Nurses in this study not only perceived a lack of support from the local community as well as from their employer, but at times experienced stress secondary to the local political situation within the community (Gregory, 1992; O'Neil, 1986).

Nurses' work in the Nursing Station was characterized by a heavy workload that included being on-call at night and often-disturbed sleep, perceived lack of support, stress secondary to working and living within an unfamiliar contextual and socio-political environment, and working short-staffed, which shifted the focus of care to urgent and emergent health services at the expense of preventive care. These were all factors that reflected the demands and challenges that confronted nurses in their work and contributed to the high rate of nursing staff turnover, which in turn exacerbated nurses' workload. Nurses' preparation to meet the challenges of being primary health care providers in such a demanding environment was another key factor that influenced both how "busy" nurses were and how nurses coped with the challenges of their work, which in turn influenced nurses' ability to provide continuity of patient care.

Being Prepared: Nurses' Readiness for the Nursing Station Role

Although nurse participants had begun their Nursing Station careers with a variety of different levels and types of previous experience and education, none of these participants believed her previous experience or education had been sufficient preparation for the Nursing Station role. Few perceived any part of their formal nursing education to have contributed specifically to their preparedness to work as a primary care provider, suggesting the primary

care role required knowledge and skills beyond what nurses learned in basic nursing education programs. Participants also described feeling unprepared and surprised by the context of isolation and poverty they found when they first arrived in a northern reserve community, and unprepared for the challenges of working within the cross-cultural context. Not only did nurses find themselves in a position they felt inadequately prepared for both clinically and culturally, at the same time they were expected to work in a more independent role and with less support than they had experienced in past nursing positions.

Several nurse participants had previous experience as emergency room (ER) nurses and identified ER experience as being "definitely" needed in the Nursing Station. While ER experience undoubtedly provided nurses with many critical skills that were fundamental to Nursing Station work (Tarlier et al., 2003), other nurse and administrator participants identified that ER experience alone did not provide nurses with the full spectrum of competencies required for the broad-based, generalist role that Nursing Station work entailed (Vukic & Keddy, 2002). Nurses also needed clinical and procedural competencies related to the diagnosis and management of common episodic conditions (e.g., chest infections, colds, otitis media) and the long-term management and follow-up of common chronic and "multisystem" conditions such as diabetes and hypertension. Nurses needed to be competent providing care for patients of all ages, from newborns to elders, and providing routine prenatal and postpartum care, including preventive services such as obtaining and handling specimens for "pap" smears and giving immunizations. There was a perceived high-priority need for nurses to be prepared to cope with emergency situations that occurred relatively infrequently, yet paradoxically, as one nurse pointed out, the "bread and butter" day-to-day practice of nurses involved providing basic primary care, patient teaching, preventive services and health promotion for patients of all ages. Importantly, while children and

childbearing women were two patient groups that comprised a significant part of nurses' dayto-day practice in the study site, no nurse participant in this study had come to the Nursing Station role with previous experience or expertise working with either of these two patient populations.

Nurse participants described how they had started out "green" and began to develop primary care and PHC competencies once they began work in the Nursing Station. The first strategy that was available to help nurses develop these competencies was the three-week orientation that FNIHB provided. The first two weeks of the orientation were conducted in a classroom setting in Winnipeg, where new recruits focused on learning about the structure and organization of FNIHB, the routine paperwork, assessment and diagnostic skills (i.e., history taking and physical examination consistent with a medical model of practice), specific skills such as suturing, and the health programs that were routinely offered in the Nursing Stations, for example, chronic health programs, prenatal care and diabetic teaching. This was followed by a week to a week and one half of hands-on practice in a Nursing Station under the tutelage and supervision of a nurse educator. After this, new recruits were on their own, sometimes "buddied" with a resource nurse, or with a second nurse on-call as "back up" for after-hours emergency calls.

Orientation included an introduction to the public health aspects of the Nursing Station role, that is, to preventive health and health promotion. Nurses were oriented to mandatory public health programs that included the immunization programs, well child clinic and women's health. In contrast to the ambiguity expressed by some of the more experienced nurse participants in this study regarding the role of the Nursing Station nurses in providing immunizations, well child clinics and other "public health" programming, nurses who had received the orientation were clear that these responsibilities had been part of their

orientation to the role and that these had been clearly presented as being part of the responsibility and expectation of nurses working in the Nursing Station.

While those nurses who had been through the orientation viewed it as having been a valuable experience, they also perceived that it fell short of adequately preparing them for either clinical practice in the expanded and advanced role or the reality of living and working within the context of aboriginal health in a remote community. One participant with several years' previous acute care nursing experience viewed the orientation as having not prepared her at all for the reality of practice: "I didn't really know what was expected of me until I got up here and saw, oh my god, this is what I've gotta do - it freaked me out". Other participants identified specific aspects of the orientation that they viewed as not conducive to learning: "It was really difficult learning things at the beginning of those two weeks and then expecting to apply them your first week out. You forgot what you learned at the beginning of those two weeks: it was information overload".

The second formal strategy that supported nurses' development of primary health care competencies were the Primary Care (PC) Skills course and the Community Health Nurse (CHN) upgrading course that FNIHB has traditionally offered to employees. All of the nurses in this study who had (or had held in the past) a permanent fulltime position with FNIHB had been sponsored to a PC Skills course. The PC Skills course was a three-month course that included classroom study and a clinical practicum under the supervision of a physician preceptor. Nurses generally were required to work for some length of time in a Nursing Station prior to being sponsored to take the PC Skills course. However, one nurse believed that it would have been useful to take the course before starting to work in the Nursing Station, a statement that was consistent with other participants' views related to the inadequate preparation provided by the orientation. Nurses who had taken the PC Skills

course perceived that it had been key to helping them develop or enhance their primary care competencies: "the thing I rely on the most is having really strong assessment skills, and that was drilled into me from Primary Care Skills". Another nurse stated, "[PC Skills] pertains exactly to what we're doing, everything that we studied there, we do here. It was an excellent course". Notably, this participant's statement overlooked the fact that the focus of the PC Skills course was primary care, which was just one aspect of the broader primary health care role expected of nurses.

The other important aspect of the PHC role was the community health nursing aspect. Nurses prepared with a baccalaureate degree were assumed to have developed community health nursing (CHN) competencies during their formal educational program. Conversely, while degree-prepared nurses may have had more exposure to public health nursing during their basic nursing education than diploma-prepared nurses were likely to have had, this did not guarantee that they had had sufficient exposure to develop community health competencies. For example, although degree-prepared nurses in this study perceived that exposure to community health nursing during basic nursing education provided a helpful basis for the further development of competencies in community health, they did not perceive themselves as being fully competent in the role. An administrator described degree-prepared but inexperienced nurses who had previously come to work in the community as public health nurses, saying "they up and left because they couldn't cope".

Nurses without a degree had traditionally been offered the FNIHB CHN upgrading course, which provided formal education related to the "public" and community health expectations of the Nursing Station role, as well as to community development. The CHN course also included content on "aboriginal cultural" and working with families. Of the participants in this study who worked fulltime for FNIHB, or who had worked in a fulltime

position in the past, all had either taken the CHN upgrade course or were degree-prepared nurses.

Being prepared for Nursing Station work included understanding the socio-political context of aboriginal health and being familiar with the broader community context, including issues related to the social conditions that prevailed in the community, such as poverty and the lack of running water. Interestingly, each of the First Nations health care professionals and administrators who participated in this study clearly identified the need for non-aboriginal health care professionals to be better prepared to work within the context, culture and enculturated social conditions of a remote aboriginal community. These First Nations participants believed that non-aboriginal nurses required more education about northern aboriginal communities, in particular, about how contextual issues affected health and about the differing value systems. One First Nations nurse described how the lack of contextual understanding influenced non-aboriginal nurses' understanding of a different value system: "People don't eat properly only because they're on a budget, on welfare, and there's no running water so therefore hygiene is a factor; there's just different values. So they [i.e., non-aboriginal nurses] have to try and understand the native culture". This statement demonstrated the propensity among both First Nations and non-First Nations nurses to conflate aboriginal culture with enculturated social conditions. However, in making the link between the need to understand contextual differences in order to support thinking critically about the links between the social determinants of health, differing values, and health conditions in the community, this participant implied that non-aboriginal nurses required knowledge related to the broader socio-historical context of aboriginal health (Anderson et al.; 2003, Browne, 2005; Papps & Ramsden, 1996; Smye & Browne 2002), and not just more information about aboriginal culture per se.

Each of the nurses who participated in this study believed she had been unprepared and relatively unsupported when first starting out in the Nursing Station role. Nurses who had subsequently committed to fulltime employment with FNIHB had been supported to develop primary care and PHC competencies through being sponsored to attend the PC Skills course and in a few cases, the CHN upgrade course. Notably, the majority of nurses who worked in the Nursing Station during the study period were employed by FNIHB on a relief, or casual basis, and one nurse was employed by a nursing agency that contracted short-term relief nurses to FNIHB, therefore the number of participants in this study who had attended either the PC Skills course or the CHN upgrade course was relatively small.

One participant described an exemplar experience as a new employee. This participant had elected to do a final clinical practicum in her baccalaureate nursing program in a FNIHB Nursing Station. Following graduation, she committed to working fulltime with FNIHB. She was provided with an extended orientation that included spending three months in a small hospital to develop acute care skills. On her return to the Nursing Station she was "buddied" with a supportive, more experienced nurse until taking the PC Skills course. This participant described the process of orientation and developing primary care and primary health care competencies in positive terms, in contrast to some of the participants who had been less well supported during the process, and she remained highly positive about the Nursing Station role.

Nurses who fell between the cracks as far as being supported to develop competencies in primary care and PHC included those nurses who did not survive the interval between orientation and the PC Skills course: Being unprepared created anxiety and these nurses subsequently left the Nursing Station for presumably less stressful employment, thus contributing to the high turnover rate among nurses. Nurses who worked relief rather

than being fulltime FNIHB employees, including relief nurses who worked through an agency, were also unlikely to have taken the PC Skills course, although they received orientation. In return for being sponsored to the PC Skills course, relief nurses were expected to provide one year of service within one year of completing the course.²⁴ However, relief nurses were in most cases also employed by another employer in addition to FNIHB, and were unable to commit either to taking the three months' long course or to being available for the return-of-service commitment.

While my observations suggested that relief nurses were often inadequately prepared in terms of the core knowledge and skills required to work in the Nursing Station, nurse participants tended to address the issue of preparation for relief nurses in terms of experience rather than competency. However, of the relief nurse participants in this study, only one had significant previous experience working in Nursing Stations, almost all of it as a relief nurse. This participant was a diploma-prepared nurse who had worked as a relief nurse in Nursing Stations for more than 10 years yet had never had the opportunity to take either the PC Skills course or the CHN upgrade course. The following excerpt from an interview with this nurse revealed that she had not had the advantage of additional formal education related to immunization but had learned "on the job":

- R: Where do nurses get those public health skills?
- P: On the job.
- R: On the job?
- P: Yeah, I mean they, they give you a very intense exam, you know, and, uh...
- R: The immunization exam?
- P: Yeah.

Discussing nursing competencies related to providing immunizations, she stated: "I don't think immunizations are as hard as everybody makes it out to be... it's basically giving a

²⁴ Under special circumstances relief nurses could arrange to work back the 12 months over a two-year time period.

needle at the right time". This comment reflected understanding immunization as primarily a psychomotor skill. Formal advanced education related to epidemiology and the theoretical basis of immunization is necessary to appreciate the complexity involved in providing an immunization program. This excerpt also illustrated how the complexity of the public or community health aspects of the Nursing Station role were sometimes unintentionally devalued or minimized by some nurse participants. Notably, these participants tended to be non-baccalaureate-prepared nurses with relatively more previous experience in acute care nursing roles.

To be clear, relief nurses provided a very necessary service in the study site, in that the Nursing Station relied heavily on relief nurses both to provide relief when fulltime nurses went on vacation or away to courses (e.g., the PC Skills course), and to fill in nursing positions that weren't filled by fulltime FNIHB nurses. With the help of relief nurses, the Nursing Station operated short-staffed much of the time; without relief nurses, the operation of the Nursing Station would have been even more compromised. Moreover, participants believed that Nursing Stations in remote communities would always be dependent on relief and short-term staffing solutions. Thus, while fulltime nurses perceived the work of relief nurses as a group as not contributing to the overall quality of patient care, and the reality of having over 70 different nurses rotating through the Nursing Station in a two-year span clearly could be construed as having implications for at least relational continuity of care, the Nursing Station was nevertheless forced to rely on relief nurses to maintain even semiadequate staffing levels. Considering the turnover of staff and the number of relief nurses that revolved through the study site, having relief staff that were adequately prepared to work in the expanded Nursing Station role would appear to offer obvious benefits. However, as fulltime participants suggested, and my field observations substantiated, relief nurses were

often not adequately prepared for the role, a phenomenon also noted by researchers Minore et al. (2005) in their recent study of health care in remote First Nations communities.

An important paradox existed between most relief nurses' relative lack of preparation for the Nursing Station role and the extreme degree to which the study site depended on relief nurses. It was also paradoxical that working for short periods of time in different Nursing Stations was viewed as posing challenges that were unique to relief nurses, that were different to the challenges faced by nurses who worked in one site, yet relief nurses were more likely to slip through the cracks and to be less adequately prepared than were the fulltime nurses.

The Interface of Being Too Busy and Being Unprepared: Inefficiency and Ineffectiveness

Observational data collected during nurse-patient encounters and as general observations of the day-to-day work of nurses, as well as interview data with nurses, administrators and physicians suggested that when nurses were inadequately prepared for the work they were expected to do, it took longer for the work to be accomplished. For example, when nurses were not familiar with the physical layout or the routines of the work environment, it took longer for them to locate needed equipment or supplies. When nurses were unfamiliar with clinic routines, patient visits were delayed while the nurse read a guideline or found someone to ask. Finding an available resource person, and also searching through patient charts for needed information, were structural issues that contributed to extending the length of time it took a nurse to complete a patient visit. However, a nurse would also have to find a resource person (i.e., another nurse or a physician) to refer to when unsure of a diagnosis or how to best manage a particular patient condition. The work of assessing, diagnosing and managing patient health conditions was often unnecessarily drawnout when nurses lacked adequate primary care knowledge and / or procedural skills to do this work efficiently. Inadequate preparation as a primary care provider not only compromised nurses' ability to provide efficient and effective informational and management continuity of care but also contributed to nurses' perception that they were "too busy".

Interview data indicated that nurses perceived that one reason they were too busy was because they sometimes saw as many as 13 patients in a day: "it's a busy community, like, we would see 13 people a day". Notably, in the study site, as in Nursing Station settings generally, nurses might necessarily spend more time to complete a patient visit than would primary care providers in other settings because the nurse in the Nursing Station carried out all aspects of service provision herself. For example, the nurse dispensed medications because there was no pharmacist and collected lab specimens (such as bloodwork) because there was no lab technologist. This suggested that one aspect of nurses' busyness was related to the lack of personnel resources. However, this observation notwithstanding, in other primary care settings, including other Nursing Stations (based on personal clinical experience and anecdotal evidence from experienced Nursing Station nurses), nurses frequently see many more than 13 patients in an eight-hour workday. While not wishing to imply that patient volume equates to quality of care, 13 patients in even a seven-hour workday (accounting for breaks) worked out to more than 30 minutes per patient visit. This compared to one Ontario-based study of physician-provided primary care where physicians spent on average 16 minutes per patient (Boone, Stewart, Kennard, & Guimond, 2003), and a study of nurse practitioners in Ontario, Saskatchewan and Newfoundland where 45% of patient visits were completed in less than 15 minutes and 84% of visits were completed in less than 30 minutes (Way, Simms, & Greene, 2001). These findings suggested that more adequate clinical preparation might enable nurses to deliver primary care more efficiently and
effectively in the study site, thereby enabling them to cope more effectively with the volume

of work, and consequently decreasing the perception that nurses were "too busy".

To illustrate how inadequate clinical preparation for the primary care role contributed to inefficient patient care I present a brief case scenario based on an observation of a nursepatient interaction:

Case Scenario 5.1

I observed a nurse examine a five-month old infant who had been brought to the clinic because of a cough. The nurse took a history from the infant's mother that suggested a mild upper respiratory infection (URTI). Examination of the infant revealed no significant findings other than a mildly elevated temperature (i.e., 37.8°C., consistent with a mild URTI), and no respiratory signs. Without establishing a clear working diagnosis, the nurse then gave the infant an aerosol "mask" treatment with oxygen.²⁵ Not only was this treatment not indicated, it was also inappropriate, as current clinical recommendations do not support the use of aerosol masks for URTI, or of masks given with oxygen. The nurse then dispensed saline nasal drops to the mother.

This patient visit took one hour to complete, whereas I estimated that 15 to 20

minutes would have represented a more reasonable length of time, given a primary care provider who was adequately prepared to conduct a pediatric assessment, make an accurate and clear diagnosis and offer appropriate management of what was essentially a well infant with a common "cold". Where the relief nurse in this scenario took an hour to complete a patient visit, a better-prepared provider might feasibly have completed three or four patient visits. Since on most days there was a continuous backlog of patients waiting to be seen, lack of clinical preparation for the Nursing Station role contributed to nurses' being "too busy". Moreover, when patient participants voiced dissatisfaction with health services in the study site, it was most often related to clinic waiting times, which were often lengthy even for patients who had made an appointment.

²⁵ Although this was the only instance when I observed a nurse offer an aerosol treatment in the study site, my clinical practice experience in similar sites suggests that it is not uncommon for nurses to offer a non-medicated aerosol treatment by "mask", in the belief that this "loosens up" airway congestion; however, this practice is not supported by the clinical guidelines or an evidence base.

By providing treatment that was not indicated and was thus inappropriate, the message that was conveyed to the infant's mother in this scenario was that this essentially well infant with a common cold required nursing intervention, thereby reinforcing the same dependency on nurses that other participants in this study viewed as problematic, and that contributed to the volume of patient visits and after-hours calls for non-emergent concerns, and that therefore also contributed to nurses' being too busy. Moreover, while the nurse did determine during the visit that the infant was not up-to-date with immunizations, she did not take this opportunity to immunize the infant, necessitating the need for a second visit at a later date to obtain the immunization.

Not providing complete care at one visit necessitated a subsequent visit, which contributed to the volume of patient visits and nurses' busyness. Moreover, as the low infant immunization rates found in the chart review arm of this study suggested (see Chapter Six), infants were "slipping through the cracks" and were not receiving immunizations, sometimes despite multiple visits to health care professionals. This finding held clear implications for management continuity of care. The outcome of this scenario may have been different if the nurse had been better prepared to work in the broader PHC role; that is, if she had demonstrated competencies related to giving immunizations. Interestingly, the nurse participant in this scenario appeared unaware of the inconsistency that was implied by taking an hour to complete this particular "sick visit" yet stating there had been insufficient time to conduct a "well child assessment" and provide the needed immunization, further suggesting the need for nurses to possess competencies related to pediatric assessment and immunization.

Summary

Both the broader community context and the structure of health service delivery in the study site were characterized by inequitable social conditions and a lack of access to resources and support services, relative to communities and health services in mainstream Canadian settings. The community and health service system were further challenged by remoteness and by the historical and socio-political context of aboriginal health. Living as they did on both the margins of the local community and working on the margins of mainstream health services, nurses in the study site also experienced inequitable social and work conditions relative to nurses in other health care settings. Nurses' work was demanding, and contextual and structural factors influenced nurses' practice and their ability to influence continuity of patient care and health outcomes. Two influences in particular emerged as key to shaping nurses' work. One was nursing workload issues: nurses were "too busy". A number of factors contributed to nurses' being too busy, including the high rate of turnover among nurses, working short-staffed and lack of resources and supports.

The second influence was nurses' preparation to work in the expanded and advanced practice Nursing Station role. Nurses often arrived in the study site with little formal education or experience specific to prepare them to work in either the primary care or PHC roles, despite the finding that new nurses received a three-week orientation from FNIHB. Nurses who worked fulltime as FNIHB employees were further supported by eventually being sponsored to the three-month Primary Care Skills course, and diploma-prepared nurses had sometimes been sponsored to the CHN upgrading course. However, despite the particular challenges that relief nurses faced, relief nurses fell through the cracks of preparation and tended to be the least well prepared for the PHC role, particularly in regard to the primary care and community nursing aspects of the role.

Nurses' lack of preparation was closely linked with nurses' being too busy, in that lack of adequate preparation for the Nursing Station role contributed to inefficient and ineffective practice, which exacerbated nurses' perception that they were too busy. Thus, the structure and context of nurses' practice contributed to the challenges of providing continuity of patient care, in that nurses were often too busy or lacked adequate preparation to provide health services that supported relational, informational and managerial continuity of care. The themes related to the context and structure of nurses' challenging work conditions, and nurses' working at the margins of mainstream nursing practice, offer a backdrop to the presentation of findings related to health outcomes in Chapter Six.

CHAPTER SIX

DATA FROM CHART REVIEW: A WINDOW INTO HEALTH OUTCOMES AND CONTINUITY OF CARE

Introduction

A primary hypothesis underlying and motivating this research was that residents of some remote aboriginal communities experience fragmented health care and poorer health outcomes relative to other Canadians. This question was based in the national health status indicators data (i.e., INAC, 2003; CIHI, 2004a) and the literature presented in Chapter Three that described aboriginal health and health outcomes at the national level. The purpose of collecting health outcomes data that were specific to the study site was to determine whether health outcomes in this community were consistent with the national aboriginal health indicator data. Exploring health outcomes specific to the study site also offered an anchor for examining the contextual, structural and process issues in the site that influenced continuity of patient care.

In this chapter I first present data from patient chart review substantiating that study site health outcomes on the selected health indicator conditions were consistent with national indicators of aboriginal health. These findings suggested that health services in the study site are challenged by fragmentation. I then present findings from the contextual notes data collected from chart reviews (as described on p. 89), to situate the health outcomes data contextually, and to link health outcomes to continuity of patient care. The analysis of the contextual notes data in light of the health outcomes exposed some of the sources of fragmentation. The interpretation presented here is organized around the three dimensions of continuity of care identified by Reid et al. (2002): (a) relational, (b) informational and (c) managerial. To review the definitions of these dimensions, informational continuity refers to

the transfer of information and the accumulated knowledge a health provider has of a patient; relational continuity refers to both on-going patient-provider relationships and consistency of personnel; and management continuity depends on coordination and consistency in the approach to treatment management. Using this framework to explore fragmentation of health services exposed the gaps in service that were reflective of discontinuity of patient care.

Exploring Health Outcomes in the Study Site

Data related to clinical health outcomes were based on the two pre-selected health indicator conditions: (a) prenatal care and (b) care of the infant through the first year. Data were extracted from a manual review of 128 randomly selected patient charts, which represented 65 mother-infant dyads (including two maternal charts for which the corresponding infant's chart could not be located), or approximately 22% of the births that occurred to community members during the defined study period from September 1, 2001 through August 31, 2004 (as described in detail in the methods section). The data related to health outcomes were collected and analyzed (also as described in the methods section). The findings described in this chapter are organized first in terms of describing the sample of prenatal women and their infants, outcomes related to perinatal care, and outcomes related to infant care. Contextual notes data are then presented, using three patient case scenarios to illuminate the context and process of patient care and to link health outcomes with continuity of care.

Description of the Sample Population

All of the women and infants (n = 128) that comprised the sample for chart review were "treaty" members of a local First Nations Band and were deemed residents of the study site community. The charts of 65 infants and their mothers were randomly selected for review. Each of the women (n = 65) had an "active" patient chart in the nursing station and

had received some or all of her prenatal care at the nursing station. Similarly, each of the infants had an active patient chart in the nursing station and had received some or all routine infant care at the nursing station, with two exceptions. One infant's chart could not be located and another infant had remained hospitalized in Winnipeg during the entire first year following birth, thus the charts of 63 infants were reviewed. Of this sample about half of the infants were male (n = 33) and half were female (n = 30).

The mean age of women in the sample was 22.5 years (n = 65). Ages ranged from 14 to 39 years, with a median age of 22 years and a mode of 17 years. Seventy two per cent of the sample was aged 25 years and younger. Only 6% of the sample was aged 30 years and older. Almost 31% of the sample was aged 19 years and younger (i.e., were adolescents). The rate of births to adolescent women in the sample was high compared to approximately 6% of all live births to adolescents in the Canadian population overall (based on 1997 data, Health Canada, 2000a) and approximately 22% in the Canadian First Nations population (based on 1999 data, Health Canada, 2003).

Almost 28% of the women were primigravid. Gravida status in the current pregnancy ranged between one (i.e., nulliparous) and 12; the average was 3.3 and the median number of pregnancies was two. Para status in the current pregnancy ranged between none and eight; the average and the median were 1.8 previous live births, which is less than the estimated fertility rate of 2.7 among on and off reserve aboriginal women, but greater than the rate of 1.5 for Canadian women overall (Health Canada, 2003). Six percent of women were "grand multips", defining grand multiparity as five or more previous viable births (Humphrey, 2003). The charts of five women were reviewed twice, for two different pregnancies during the study period. Four of the pregnancies included in the chart review were twin pregnancies; in these cases, only the chart of the single infant that had been randomly selected was

included in the infant chart review. Data describing age and gravida status are presented in

Table 2.

Table 2			
Maternal Age and Gravida Status			
Variable	Percent	Range	Median
Maternal age $(N = 65)$		14 – 39 years	22
14 – 19 years	30.8%		
20 – 25 years	41.5%		
26 – 29 years	21.5 %		
30-39 years	6.2%		
Gravida status ($N = 65$)		1 – 12 pregnancies	2
Primiparous	27.7%		
Para 2 - 4	66.1%		
Grand Multips (Para 5+)	6.2%		

Perinatal Health Outcomes

Descriptive statistics related to perinatal health were collected on four specific clinical health outcomes: (a) gestational age at delivery was between 38 and 42 weeks, (b) infant birth weight was between 2500 and 3999 grams, (c) whether the delivery was free of complications that might reasonably be directly attributed to prenatal health, and (d) a visit for routine postpartum follow-up care had occurred between six and eight weeks following delivery. These data were collected nominally; that is, the criterion for each outcome was met or not met. The number of outcomes that were satisfactorily achieved by each woman reflected the outcome of each pregnancy in general terms. Almost three quarters (73%) of the women in this sample achieved satisfactory perinatal outcomes on 50% or more of the criteria. Results are tabulated in Table 3.

Table	3
1 4010	2

Perinatal Health Clinical Outcomes

Clinical Health Outcome	Frequency	Percent
Gestational age at delivery between 38-42 weeks	50/65	75%
Infant birth weight between 2500 – 3999 grams	49/65	75%
Delivery free of complications	39/65	60%
Postpartum visit made	10/65	15%
Number of Perinatal Outcomes Achieved by Each Woman: 4 Outcomes achieved (100%)	4/65	6%
3 Outcomes achieved (75%)	32/65	49%
2 Outcomes achieved (50%)	12/65	19%
1 Outcomes achieved (25%)	13/65	20%
0 Outcomes achieved (0%)	4/65	6%

Data were also collected on gestational age at delivery and infant birth weight. Gestational age at delivery ranged from 34 to 42 weeks, with a mean of 38.7 weeks (n = 65; SD = 1.98). The median and the mode were each 39 weeks. Premature births were defined as occurring before 37 completed weeks' gestation (Baskett, 1991; Wenman, Joffres, Tatryn, et al., 2004). Premature births accounted for 22% of births in the sample, compared to 7.1 per 100 live births in Canada overall in 1997 (Health Canada, 2000a). More than 75% of births in the sample occurred between 37 and 41 completed weeks of gestation. Births past 42 weeks' gestation accounted for 3% of births, compared to the Canadian national rate of 1.8% (Health Canada). However, it is important to note that planned interventions such as induction of labour or caesarean section were routinely implemented past 42 weeks' gestation. It should also be noted that since sample selection was dependent on recorded live births, any premature or post-dates births that resulted in fetal death would not have been included in the chart review; therefore, the number of pregnancies that terminated in premature or post-dates delivery may actually be higher than indicated by this data.

Infant birth weights ranged from 1347 to 4936 grams, with a mean of 3498 grams (SD = 642) and a median of 3577 grams. Six percent of birth weights in this sample were low

birth weight (i.e., less than 2500 grams), compared to 4.7% of all First Nations on-reserve births in 2000 (FINIHB, 2005). Nineteen percent of birth weights in the sample were high birth weight (i.e., greater than 3999 grams), compared to 20.4% of First Nations births (both on and off reserve) nationally (Health Canada, 2003). Thus, while 75% of birth weights in the sample fell within the desirable range of 2500 to 3999 grams (i.e., the range associated with better long-term health outcomes [Health Canada, 2003]), 25% of birth weights fell outside of the desirable range. The descriptive data related to gestational age and birth weight are presented in Table 4.

Table 4		******	*****		
Gestational Age at Birth and Birth	Weight				
Variable	Range	Median	SD	Frequency	Percent
Gestational age at birth $(N = 65)$	34 - 42	39	1.98		
< 37 completed weeks				14/65	21.5%
38 – 41 completed weeks				49/65	75.4%
> 41 completed weeks				2/65	3.1%
Birth weight $(N = 65)$	1347 - 4936	3577	642		
< 2500 grams				4/65	6%
2500 – 3999 grams				49/65	75%
> 3999 grams				12/65	19%

Only 10 of 65 women (15%) in this sample experienced routine postpartum care with a nurse or physician. The charts of 55 of 65 women (85%) offered no evidence that the women had attended a postpartum visit. This compares to 85% of women who did attend a postpartum visit in a large (n = 9,953) study of American women using data from the 1988 National Maternal and Infant Health Survey (Lu & Prentice, 2002).

The Prenatal Data Abstraction Protocol that guided data collection during chart review (see Appendix E) defined the occurrences during pregnancy, labour and delivery that constituted "complications" for the purposes of data collection. Although data regarding complications of pregnancy, labour and delivery were collected at the nominal level, the contextual notes provided additional data to indicate the type and extent of complications. Review of the descriptive data presented in Table 5 revealed that pre-existing health conditions (e.g., diabetes, hypertension) and conditions that developed during pregnancy (e.g., pregnancy-induced hypertension [PIH], gestational diabetes mellitus [GDM], macrosomia) were frequently associated with premature labour and delivery and with interventions such as induction of labour and caesarean section. Interventions in turn carried a higher degree of risk of poor outcome, such as wound infection and anesthetic complications. Twenty-nine out of the 65 women in this sample (44.6%) experienced a complication of pregnancy, labour or delivery. Two of the patients included in this chart review experienced major complications of pregnancy, labour and delivery; one woman underwent hysterectomy secondary to uncontrollable postpartum hemorrhage and another woman experienced complications during a caesarean section that resulted in ongoing loss of function.²⁶

Caesarean section was included as a complication only if there was reasonable evidence in the patient chart to suggest the procedure was due to a complication of pregnancy or labour; for instance, elective c-sections or c-sections for certain malpresentations (e.g., breech, transverse lie) were not included as complications. Caesarean sections for macrosomia or fetal distress were included as a complication. Table 5 suggests that 11 out of 65 women underwent c-section, or just less than 17%, which is low compared to the figure of 22.5% estimated for c-sections nationally (CIHI, 2004b). However, by including the csections that were not counted as complications (i.e., planned c-sections), the c-section rate in this sample increased to 24.6%, or slightly higher than the national rate.

²⁶ Unspecified to safeguard patient anonymity.

Table 5		
Complications of Pregnancy, Labour and Delivery		
Description of Complication of Pregnancy, Labour and Delivery	Age	Para
Postpartum hemorrhage, anemia postpartum	22	*
Multiple gestation, premature delivery at 36 weeks	20	*
Multiple gestation, premature labour, c-section at 34 weeks	20	2
Postpartum hemorrhage	23	*
DM, macrosomia, 2 degree tear, hemoglobin 55 postpartum	21	0
Type I Diabetes, multiple gestation, c-section at 34 weeks	24	*
Uncontrolled HTN, Type 1 diabetes, macrosomia, c-section at 37 weeks	26	2
Persistent anemia, low birth weight infant, c-section for failure to progress	19	0
Anemia, HTN, induced at 37 weeks	17	0
Renal failure, multiple gestation, HTN > PIH, SVD at 37 weeks	27	4
Persistent UTI's, septic infant, NICU $x < 1$ week	17	1
Anemia, elevated BP, macrosomia, c-section at 41 weeks for failure to	24	1
Grand multin anomia CDM induced 28 CDM restrictions have made	27	0
infection	27	8
Uncontrollable postpartum hemorrhage > hysterectomy, anemia, wound	18	1
infection		
Untreated UTI > premature delivery at 34 weeks in nursing station	17	1
C-section at 34 weeks for PIH and GDM $>$ infant NICU x < 1 week	34	4
Primip SVD in nursing station at 37 weeks (39 weeks per fetal assessment)	17	0
Anemia, DM, macrosomia, induced at 41 (42) weeks 2° oligohydramnios, c-	27	0
section for failure to progress, CPD		
PIH, induced at 39 weeks	18	1
Anemia, PROM at 36 weeks, induction	29	1
GDM, elevated BP, c-section (breech)	18	1
Type 1 diabetes, delivery at 35 weeks, infant had significant congenital abnormalities	30	3
DM premature delivery at 36 weeks c-section	23	Ο
Anemia PROM premature delivery at 37 weeks medevac	20	0
Anemia, DM, elevated BP	20	2
Anemia, spotting at 34 weeks, labour at 41 weeks, c-section for failure to	23	2
progress, fetal distress > anesthetic complications (GA) > ongoing maternal	23	3
sequelae		
Postpartum hemorrhage	17	0
Persistent UTI's, PIH, pre-eclampsia, failed induction. C-section at 36 weeks	20	0
Grand multip, renal failure, anemia, premature delivery at 36 weeks	29	6
* 1.4		

* Missing data

Complications of pregnancy were often found in conjunction with pre-existing

conditions or illnesses such as diabetes or renal disease. Nine out of 65 women (13.8%) in

this sample had a diagnosis of diabetes during pregnancy. Notably, the contextual notes and

observational data demonstrated inconsistencies both in implementing clinical guidelines for gestational diabetic screening and for following up with further diabetic testing postpartum, as well as with documentation of testing results; therefore it is likely that rates of diabetes in the sample group were actually higher than Table 5 suggests. The Canadian Diabetes Association (CDA) (2003) estimates the prevalence of gestational diabetes to be between 8% and 18% in the Canadian aboriginal population. Similarly, nine out 65 women (13.8%) had been identified in pregnancy as having an elevated blood pressure, either pre-existing or pregnancy-induced. Anemia during pregnancy was not included as a complication unless it appeared to be persistent or profound. Thus the prevalence of anemia in the sample group was higher than indicated in Table 5.

Infant Health Outcomes

Descriptive statistics related to outcomes of infant care through the first year were collected on three clinical health outcomes: (a) whether routine immunizations were up-to-date at age 12 months (or at the time of the chart review if an infant was aged less than 12 months at the time of the review), (b) whether infant weight gain was satisfactory at age 12 months (or at the most recent documented weight if an infant was aged less than 12 months at the time of the chart review), and (c) whether the infant's hemoglobin had been documented and was within normal parameters between six and 12 months of age. These data were collected nominally; that is, the criteria for each outcome was met or not met. The number of outcomes that were satisfactorily achieved by each infant reflected health outcomes in infancy in general terms.

At age 2 months, 36.5% of infants were fully immunized. Immunization rates then dropped for the next two immunizations: fewer than 12% of infants were fully immunized at age 4 months, and only 5% of infants were fully immunized at age 6 months. While

immunization rates increased again by age 12 months, over two thirds of infants were not

fully immunized at the time of their first birthday. Infant health outcomes and immunization

rates are summarized in Table 6.

Table 6			
Infant Clinical Health Outcomes			
Clinical Health Outcome	Frequency	Percent	
Weight gain satisfactory at 12 months (or for	37/63	59%	
age)			
Hemoglobin within normal limits (6-12	23/58	40%	
months)			
Immunizations up-to-date for age ²⁷	24/63	38%	
Number of Infant Health Outcomes Achieved			
by Each Infant:			
3 Outcomes achieved (100%)	7/63	11%	
2 Outcomes achieved (67%)	21/63	33%	
1 Outcomes achieved (33%)	21/63	33%	
0 Outcomes achieved (0%)	14/63	22%	
Infant Immunization Datas		Immunicad	Unimmunized
Infant Immunization Rates:		Immunized	Unimmunized
2 month	23/63	36.5%	63.5%
4 month	7/60	11.7%	88.3%
6 month	3/59	5.1%	94.9%
12 month	17/51	33.3%	66.7%

The immunization rate of 33.3% at age one year among infants in the study site compared to a rate of 57.3% among all on-reserve First Nations infants in Manitoba between 1995 and 1998, 62% of all First Nations infants in Manitoba (i.e., on and off-reserve), and 88.7% of all other Manitoba infants (Manitoba Centre for Health Policy [MCHP], 2002). Thus immunization rates among one-year-old infants in the study site were lower than

²⁷ NB: The seeming discrepancy in the data presented in Table 6 related to "Immunizations up-to-date for age" (i.e., 38%) and "Infant immunization rates at 12 months" (i.e., 33.3%), presented at the bottom of Table 6, is explained by the fact that a few infants in the second round of sampling had not yet reached their first birthday at the time of the study. In these cases, infants were deemed to have an up-to-date immunization status if their immunizations were up-to-date for their age at the time of the chart review (also, see Appendix E).

immunization rates for other First Nations infants in Manitoba and lower than the overall Manitoba infant immunization rate.

Of the 58 infants who had passed six months of age at the time of chart review and who ought to have received a hemoglobin screen in accordance with the FNIHB clinical guidelines, 23 (40%) had a documented hemoglobin value that was within normal parameters for the infant's age at the time of screening (i.e., 110-150 g/L at age 12 months, or 105-145g/L if screened at age 6 months only). Thus, 60% of infants were either screened and identified as having low hemoglobin, or had not been screened and therefore their hemoglobin value was unknown.

Data extrapolated from the contextual notes suggested that low hemoglobin was prevalent in this sample of infants. Of the 58 infants who were age-eligible for screening, 21 (36%) had not been screened by age 12 months. Of the 37 infants who had been screened, 14 infants (38%) had a low hemoglobin value. The lowest infant hemoglobin value noted was 82 g/L. Several values were noted to be less than 100 g/L. In a study of the prevalence of anemia among Cree First Nations infants, Willows, Morel, and Gray-Donald (2000) found that 31% of infants had a hemoglobin value of less than 110 g/L at age nine months. The value of 110 g/L is the 2.5 percentile for healthy infants, while the value of 100 g/L "corresponds with at least moderately severe anemia" (Willows et al., p. 324). Willows et al. noted that the prevalence of hemoglobin value lower than 110 g/L in Canadian nonaboriginal infants is 8%.

Linking Health Outcomes to Context and Continuity of Care

The clinical health outcomes findings described in this chapter reflected less than ideal clinical health outcomes in maternal and infant health. In remote aboriginal communities in Canada the responsible federal health authorities recognized early on the

need to offer a strong program of maternal-infant health care. The hiring preference for early outpost nurses to have midwifery training, therefore proficiency in maternal-infant health, attests to this recognition. The responsibility for providing maternal-infant health care in remote aboriginal communities has traditionally fallen to nurses, as the main primary care providers. The emphasis on nurses having midwifery or strong maternal-infant nursing skills has decreased since the time FNIHB (then MSB) began to discourage childbirth in remote aboriginal communities by "evacuating" aboriginal women to southern obstetrical facilities several weeks prior to their delivery dates (O'Neil, 1986). Despite this change, there has continued to be an implicit belief that maternal-infant health is an area of primary care that nurses continue to "do well" in remote aboriginal communities. But the maternal-infant health outcomes described in this chapter suggested that this is an area both women and infants may be falling through the cracks of the health care system. That is, less than ideal outcomes suggested that mothers and infants experienced less than optimum continuity of care. But precisely where did the gaps exist, and what factors contributed to the dynamics that created gaps?

Nurses' preparation as primary care providers of women and infants is one factor that may influence continuity of care as experienced by women and infants in this study; in particular, the dimensions of management and informational continuity. If providers lack the knowledge and skills necessary to effectively and efficiently manage and follow-up the health of women and infants, then management and informational continuity will be compromised. For example, one important observation I made during a nurses' "in-service" educational session was the general lack of knowledge nurses had regarding diabetic screening in pregnancy. This lack of knowledge was also reflected in the data I collected from reviewing women's charts that demonstrated inadequate or inappropriate screening for

gestational diabetes, failure to identify patients at risk for gestational diabetes (e.g., women who had previously delivered a large-for-gestational age infant), or failure to proactively follow-up women at risk. Similarly, during fieldwork I observed the challenges several nurses experienced regarding the diagnosis, management and follow-up of anemia in both women and infants, which was substantiated by the chart review data.

Relational continuity, as defined in Chapter Two, refers to on-going patient-provider relationships and consistency of personnel (Reid et al., 2002). Relational continuity may also be defined as "'practice' or 'site' continuity" (Haggerty et al., 2001, p. 6), for example, when a patient consistently attends for health care at one facility, even though the patient may not be consistently assigned to a single provider. Although there were a few exceptions in this study where patients moved between the study site and either a neighbouring community or one of the urban referral centers (such as Winnipeg), most patients received all or most of their primary care at the Nursing Station in the study site, thus experienced relational continuity in terms of health facility. Because the same physician had been visiting the study site for several years, review of patient chart data suggested it was likely that many patients experienced some degree of relational continuity in terms of their physician provider. However, because nurses provided most of the routine primary care, the high turnover rate among nursing staff meant that patients were vulnerable to poor relational continuity in terms of their primary care provider.

In the remainder of this chapter, I present an interpretation of the findings that emerged from the contextual notes data derived from chart review. These findings are framed as case scenarios. Each case scenario demonstrated the links between outcomes, context and the three dimensions of continuity of care. In some cases, these links were self-evident. However, it would be inaccurate to suggest that these links were clear-cut in all cases, or that

other factors did not often, if not usually, also play a role in the dynamics that underlay continuity of care. These other factors most often originated within the broader community context, the local context and structure of health services, and occasionally, the context and structure of the larger health services delivery system (i.e., referral services located in the larger urban centres). Cases where links were less apparent demanded a degree of speculation. Speculation, as offered in this interpretation, was suggested and supported by findings from the observations, interviews and artefacts data. The interrelationships among the factors presented in the following case scenarios were complex and sometimes challenging to unravel. However, the contextual notes data from chart review helped to illuminate and provide additional insights into both the health outcomes that were a finding of this study and the links between outcomes, context and the three dimensions of continuity of care.²⁸

Case Scenario 6.1

27-year-old grand multip. Pregnancy diagnosed about 7 weeks' gestational age, initial work-up done at 18 weeks. Seen by four different RN providers on a total of four visits for prenatal care. Gestational diabetic. Anemic throughout pregnancy: hemoglobin less than 80 g/L at 30 weeks despite iron therapy. Induced vaginal delivery at 40 weeks due to gestational diabetes. Babe weighed less than 3500 grams. "Small" postpartum hemorrhage: hemoglobin 86 g/L after delivery. Developed unspecified postpartum infection requiring IV antibiotics prior to hospital discharge [to home community]. No evidence of postpartum follow-up re: infection or anemia, or of a routine postpartum check at 6 weeks.

This patient had requested a referral for TL [tubal ligation] prior to this pregnancy. The community MD sent a referral to a gynecologist at about the same time that the patient became pregnant again. There is no evidence that options to terminate the pregnancy were discussed with the patient at the time she had the pregnancy

²⁸ It must be noted that previous studies have suggested that chart documentation data tend to lack completeness (Buhler et al., 1988; Sheps & Robertson, 1984), in that providers may either carry out interventions or discuss interventions with patients that are not subsequently recorded in the patient chart. These authors also noted that incomplete charting had a detrimental influence on informational continuity. The present study was conducted in a setting where it was anticipated that multiple providers might see a patient over subsequent visits, therefore completeness of chart information was viewed as an important factor that contributed to informational continuity of care. Thus, for the purposes of this research, the stance taken was "not charted, not done".

diagnosed at 7 weeks' gestation. An RN documented during a routine prenatal visit that the patient stated she did not desire further pregnancies. The referral gynecologist was also the attending obstetrician [i.e., at delivery]. There was no evidence in the chart of postpartum follow-up or of a postpartum check at 6 weeks. [At the time of chart review] this woman is currently pregnant again, having conceived about 9 months post delivery. Did the communication re: desired TL fall through a gap and if so, where and how?

INTERPRETIVE MEMO: This case is an exemplar of fragmented care between providers, with very significant consequences. This woman was at-risk for further [high risk] pregnancies due to several risk factors, including diabetes, anemia and parity, and had requested a TL. Yet she has gone through at least 2 further pregnancies since her initial request, due to fragmented care. Why was no one listening to her request and acting to expedite her request?

This case scenario described a woman who despite an expressed wish for tubal

ligation and personal health factors that placed her at increased risk during pregnancy (i.e., high parity, gestational diabetes and anemia) went through two further undesired pregnancies. While this woman delivered an infant of healthy weight at term, she also experienced complications of labour and delivery (i.e., postpartum hemorrhage and infection) and she did not attend a visit for routine postpartum care. Thus, only two of the four health outcomes criteria (i.e., 50%) were met. The outcomes of the subsequent pregnancy were not part of the data collected for this study and remain unknown.

Chart data suggested compromise of all three dimensions of continuity of care in the prenatal care provided to the patient in this scenario. Although the patient received primary prenatal care at a single facility, a different nurse saw her on each of four visits; a finding that suggested a consistent patient-provider relationship was not part of the dynamic of care. Informational continuity was compromised in relation to passing on the patient's desire for tubal ligation, in that the referral and consultation to the gynecologist did not occur before the patient became pregnant again. Illustrating one of the limitations of chart data, it is unknown what discussion the gynecologist may have had or not had with the patient regarding tubal

ligation at the time of delivery and what decision may have been agreed on at that time, as that information did not appear in the patients' chart. This in itself further compromised informational continuity. For example, if the patient and gynecologist had agreed that the patient would return at six weeks' postpartum to undergo tubal ligation, that information was not conveyed back to the nursing station and placed on the patient chart, where nurses may have been more likely to follow-up the plan with the patient and facilitate the referral and procedure. Nine months elapsed between delivery of this pregnancy and the patient's subsequent pregnancy, but there was no indication of follow-up of the original referral during that time. This illustrates the basis of the "not charted, not done" stance taken in this study.

Management continuity compromised several aspects of care in relation to the current pregnancy as well as a future pregnancy. For example, despite the patient's expressed desire for no further pregnancies, there was no indication that options related to pregnancy termination were discussed. Although pregnancy was diagnosed at about seven weeks' gestation, the initial prenatal workup was not done until 18 weeks' gestation, thus this patient received little prenatal care or assessment during the critical first trimester of pregnancy. There was no evidence of postpartum follow-up of either anemia or infection, or evidence that the patient was encouraged or reminded to attend for routine postpartum care at six weeks' postpartum. This last aspect of care was perhaps the most significant in terms of facilitating the patient's referral for tubal ligation; the routine postpartum visit would have offered an opportunity for a nurse (or physician) to review the patient chart, follow-up the previously made referral, and discuss interim contraceptive options with the patient.

Contextual factors that may have also contributed to the dynamics of continuity in this case scenario included the finding that high parity and multiple risk factors in pregnancy were common within the study site, to the extent that these had become normalized to some

degree. Over six percent of women in the sample for this study were "grand multips" (see Table 2) and diabetes (both gestational and pre-existing) and anemia were also relatively prevalent in the sample (see Table 5). The effect of normalizing risk factors in pregnancy was that even when patient risk factors indicated that a more proactive or aggressive approach to management and follow-up may have been appropriate, these factors did not prompt nurses to modify care management. Thus, normalizing risk factors held implications for management continuity of care. This was a key finding of this study and will be discussed at greater length in Chapter Seven.

Other contextual factors that may potentially have contributed to the dynamic underlying continuity of care in this case scenario included the individual patient context. For example, the woman in this case scenario may have avoided undesired pregnancies by using contraceptive methods other than tubal ligation, and it might be argued that she had a responsibility to do so. However, acceptability of contraceptive methods is a highly individual choice among all people, men as well as women. In the study site, as in similar communities, politico-economic, community and family dynamics sometimes subtly encouraged large families and discouraged women from using contraception. The broader community context also held implications for the patient's ability to engage with selfresponsibility for continuity of care. While the precise context of this individuals' life was not accessible as data, informal interviews with other women in the community, as well as interviews with health professionals and with para-professional staff who were members of the community suggested that the context of women's lives in the community often imposed challenges that as a grand multip, the patient in this case scenario may have shared: She may have had from five to ten or more children to care for, may have lived in one of the many houses in the community that lacked running water, may have had no resources for child care

that would allow her time to visit the Nursing Station for her own health needs, and may have

had little access to transportation to attend prenatal and postpartum visits.

Case Scenario 6.2

Teen multip.²⁹ Presented at 31 weeks' gestational age and had initial prenatal workup. No complaints. Urine specimen was sent, results returned positive for a urinary tract infection (UTI) within 2 days. The lab result sheet was flagged for the patient to be called in for an antibiotic prescription. There was no documentation indicating the patient had been recalled. Patient presented 6 days later, with complaint of fever, chills, aching. Febrile on exam. The lab result was found on the chart and the patient was prescribed nitrofurantoin for 1 week. The patient was not seen again until 12 days later when she presented with complaint of pain in her side. She had no urinary tract infection signs or symptoms but a urinalysis was positive for leukocytes. Another urine culture was planted but no further antibiotics were prescribed. The patient presented 3 days later in labour. She was delivered at 34 weeks' in the nursing station. The infant was medevaced to Winnipeg.

INTERPRETIVE MEMO: This patient fell into a gap when a positive urine lab result was not followed up on in a timely manner. It is not clear from the documentation whether the urinalysis on her initial visit showed leukocytes that would have indicated an antibiotic prescription immediately. This seems to be possibly a nursing knowledge / lack of appropriate follow-up gap. I think it is possible that late treatment of what seems to have been a severe urinary tract infection [query pyelonephritis] contributed to premature labour. Was the patient compliant with taking the antibiotics? This sort of scenario is not uncommon in northern communities, and perhaps exemplifies the ultimate effect of the multiple influences on health taken to the extreme. What is really going on behind this kind of scenario?

In this case scenario an adolescent woman presented for prenatal care in the third

trimester. A UTI was diagnosed by urine culture, but antibiotic therapy was not initiated until a week later, when the patient returned to the nursing station because of significant signs and symptoms of UTI. Effectiveness of the antibiotic treatment was not followed up. The patient presented almost two weeks later with signs and symptoms suggestive of pyelonephritis but received no further treatment other than another urine specimen was sent for analysis. Three days later the patient experienced preterm labour and delivered a low birthweight infant in the Nursing Station, which constituted a complication of labour and delivery. The patient did

²⁹ The exact age of this patient has not been provided to safeguard patient anonymity.

not attend a routine postpartum check at six weeks' postpartum. Thus, this patient met none (i.e., 0%) of the four health outcomes criteria.

The first question that arises on reading this case scenario is: Why did the patient not reveal her pregnancy to health providers until 31 weeks' gestation? Contextual factors may have offered some explanation; the patient was adolescent and possibly life or family factors influenced her to disguise the pregnancy as long as possible, although in the community generally (in common with many other aboriginal communities), adolescent pregnancy was accepted and carried little if any stigma (Montgomery-Anderson, 2003). And although adolescent, this patient had experienced a previous pregnancy; therefore it was possible that she assumed she "knew" about being pregnant and did not perceive a need to seek prenatal care. Another explanation may have lain with the experience of the previous pregnancy, about which no data was collected for this study. Speculatively, this patient may similarly have not sought early prenatal care in her previous pregnancy, or the prenatal care she received may not have been an experience she subsequently valued. Regardless of the dynamic, this was a woman who had slipped through a crack. Unable, unwilling or reticent for whatever reason to engage with the health services that were available in the community, this case scenario demonstrated no evidence of relational continuity. I speculated that had an on-going relationship been established between this patient and the health facility and / or health providers, regardless of other contextual influences, she might have been more likely to have sought prenatal care earlier in pregnancy.

This case scenario illustrated informational continuity in terms of communicating the positive urine culture result and flagging the patient chart to alert providers to the need to recall the patient for treatment. However, it is not clear what other communication strategies may have been used to notify nurses of the information that was in the chart. The need to

recall this patient may, for example, have been communicated to nurses at the morning report, or the nurse or NIC who received the report and flagged the chart may have delegated the task of recalling the patient to the para-professional or clerical staff or to a particular nurse. It is possible the patient could not be contacted by phone (i.e., some households in the community did not have a phone), or if the patient was contacted and requested to return to the nursing station for treatment, there may have been reasons such as lack of transportation, weather conditions or child care that made it difficult for her to comply in a timely manner. Thus, despite the chart being flagged, other factors may have compromised informational continuity in this scenario. This illustrated the complexity and interrelatedness of factors that may have influenced informational continuity in the study setting.

Continuity of care in this scenario was perhaps most significantly compromised in terms of management continuity, particularly as management continuity relates to coordination of patient care (Biem et al., 2003). For example, management continuity was compromised when nurses failed to follow up the initial positive urinalysis result more aggressively and in a timely fashion, and failed both to recognize and provide appropriate management of a potential pyelonephritis. There was no indication in the chart data that nurses recognized the significance of this infection at about 32 weeks' gestation; that is, that it might provoke preterm labour (Baskett, 1991) or that clinical decision-making was based on this knowledge. Thus, this case scenario demonstrated sub-optimal management continuity, possibly due to nurses' lack of adequate preparation, reflected by questionable critical thinking and clinical decision-making. Further, despite the patient being an adolescent, the chart data suggested the approach to care was reactive, rather than proactive and anticipatory; that is, an approach that may have more successfully engaged the patient in the process of care and established a basis for relational continuity.

An issue that may have influenced continuity of care in this scenario was the finding related to normalization of risk factors, which included adolescent pregnancy as well as UTI's in pregnancy. Urinary tract infections were very common in pregnancy in the study site but were generally easily treated with antibiotics. Possibly nurses normalized this pathology to the degree that the potentially serious consequences of an untreated UTI at about 32 weeks' gestation was overlooked. Similarly, because adolescent pregnancy was common in the study setting (see Table 2), I speculated that nurses normalized adolescent pregnancy and in doing so, tended to overlook the implications of adolescent patients' stages of growth and development. These implications are discussed further in Chapter Nine.

Case Scenario 6.3

Infant delivered at term, 3200 grams, healthy. Adolescent mom. No maternal prenatal care until 35 weeks' gestation. Followed by Public Health Nurse in Winnipeg during first two weeks. Referred infant for close follow-up when back in home community due to slow weight gain in the first 2 weeks and also concerns noted re: parenting. Referral letter from PHN was on the patient chart. The infant was rarely seen at the nursing station during the first ten months but then marked increase in frequency of visits for minor illnesses. Poor weight gain was evident by the 3-month visit; MD advised monthly follow-up of growth, which was not done. Hemoglobin was not checked in the first year. Some chart entries note "well child", yet failure to thrive was diagnosed at 13 months. Child was eventually referred to a pediatrician before age 17 months due to growth concerns and a draining ear. By the time the referral took place, weight had reached the 10th percentile, which was interpreted by pediatrician as an improvement. Hemoglobin was 109 g/L (i.e., low) when checked at 17 months.

INTERPRETIVE MEMO: It was difficult to reconstruct the sequence of care experienced by this infant due to the quality of documentation available. However, what was clear was that this infant was identified as at-risk at age 2 weeks and a referral was made which was evidently not followed through on in the community. I suspect the growth chart was not completed at all until a visit for minor illness at age 9 months. It looks like one nurse then transferred previous chart entries (i.e., from the narrative notes and the Child Health Record) of the infant's weight to a growth chart, and determined that the infant was not gaining weight satisfactorily. Significantly, the infant had been seen by the community PHN about 2 weeks prior to this visit; she had not noted any concern re: weight gain, and had noted that the child could be seen "after 1st birthday for MMR vaccine". Thus, this was an at-risk infant, identified as such early on at 2 weeks yet somehow fell through the cracks time after time, and received care that might be most generously characterized as haphazard. This was

likely due to a combination of factors, one of which was possibly caregiver compliance. However, it seems that health providers dropped the ball on several occasions as well. There is no evidence of a proactive approach being taken.

The third case scenario describes the care provided to an infant who was born healthy, at term, and at a weight within the parameters considered "healthy", yet at the end of the first year this infant had met none of the three health outcomes criteria for this study. The infant had failed to gain weight adequately, had not had his or her hemoglobin checked, and was not up-to-date with immunizations. This infant experienced these sub-optimal outcomes despite having been identified before age two weeks as being at-risk. How did this infant fall though the cracks to the extent that failure to thrive was diagnosed by age 13 months, yet a definitive referral to a pediatrician did not take place for another 4 months?

Contextual factors that may be theorized as having potentially influenced continuity of care in this scenario included maternal factors such as adolescence. In addition to the newborn, the adolescent mother had another young infant to care for. Moreover, she conceived again subsequent to this delivery and was therefore pregnant for most of the infant's first year. The diagnosis of failure to thrive suggested that obtaining adequate nutrition may have been a challenge for this mother, which when considered in conjunction with adolescence, having to feed two infants, the median income of unemployed community residents and the high cost of buying infant formula, in turn suggested that poverty may have been part of the contextual dynamics. This speculation is supported by recent research that explored anxiety about food supply among a similar population of Cree First Nations women with infants in Quebec (Willows, Iserhoff, Napash, Leclerc, & Verrall, 2005).

Concerns regarding poor initial weight gain and parenting concerns were identified by the PHN in Winnipeg who followed up this mother and infant following hospital discharge. The PHN communicated these concerns in a referral letter recommending close

follow-up when the dyad returned to the community. While the referral letter was on the patient chart, there was no indication that proactive follow-up had been implemented as per the PHN's recommendation. In terms of informational continuity, this scenario was similar to the previous scenario in that key information had been appropriately communicated and was on the patient chart, but nurses did not pick up on the available information and implement intervention in a timely manner.

One issue that was raised during interviews with nurses was that referral letters from outside the community were often received several weeks after patients returned to the community, and it took even longer for letters to be filed on the patient charts. Thus, it was difficult to evaluate in retrospect when the referral letter from the PHN had become available to nurses. However, there was little documentation to suggest that at whatever time the referral had become available, that it had been acted on. For example, close perusal of the growth graph in the chart suggested that while the infant's weight had been documented in the narrative notes on occasion, the infant's growth had not been graphed at all until one nurse apparently suspected poor weight gain and completed the graph when the infant was nine months of age. The overall poor quality of documentation noted in this patient chart suggested that informational continuity was compromised.

In the absence of informational continuity, relational continuity takes on greater importance, in that if there is a consistent patient-provider relationship, it is at least in theory more likely that the provider will be aware of and will remember what transpired at previous patient visits. For example, in the absence of a completed growth chart, a provider who is seeing a patient on a subsequent visit may recall that he or she queried adequate weight gain and may follow it up on the subsequent visit. Accurately and completely plotted growth charts are an important tool for assessing and monitoring infant growth (Dietitians of Canada,

Canadian Pediatric Society, College of Family Physicians and Surgeons, & Community Health Nurses Association of Canada, 2004). However, in this case scenario, the infant was seen by four different nurses on four different visits for routine infant care in the first year, and the accuracy and completeness of the growth chart was questionable. Thus, compromised relational continuity exacerbated the effect of poor informational continuity.

Management continuity was also compromised in this scenario. Not following up on the referral provided by the PHN was an example of compromised management continuity, as was the finding that 4 months elapsed between the diagnosis of failure to thrive and assessment of the infant by a pediatrician. Chart documentation did not suggest a reason or cause of this delay in management. The finding that the infant's hemoglobin was not checked until age 17 months may also be interpreted as compromised management continuity, in that poor weight gain implied a nutritional concern, therefore critical thinking based on a substantive primary care knowledge base suggested that it might be reasonable to anticipate this infant might experience other nutritional problems, such as anemia.

Summary

The quantitative health outcomes data derived from review of the charts of maternalinfant dyads substantiated that perinatal and infant health outcomes were at best, consistent with national indicators of aboriginal health. On some parameters, such as infant immunizations, the findings of this study were poorer than the national indicators. These findings suggested that health services in the study site were challenged by fragmentation. The links between health outcomes, context and the three dimensions of continuity of care were then explored through presentation and discussion of three case scenarios that presented contextual notes data from chart review to illustrate and contextualize the quantitative findings. The analysis and interpretation of the findings illuminated how context and

structure are intertwined with continuity and quality of care and that health outcomes may be influenced by any or all of these factors.

These findings also suggested that significant gaps existed within the provision of health services in the study site. These, along with issues such as the social determinants of health, conceivably played a part in influencing poor health outcomes. Gaps in health services represented fragmentation of health services and discontinuity of care. The data and the interpretation presented in this chapter grounds the theoretical interpretation presented in Chapter Seven, where I describe the findings related to the process of engaging in nursepatient encounters.

CHAPTER SEVEN

EXPLORING THE PROCESS OF ENGAGING IN NURSE-PATIENT ENCOUNTERS

Introduction

To review, in Chapter Five, I presented an interpretation of the study findings related to the broader community context and the structure of health service delivery in the study site and how these influenced nurses' work. In Chapter Six, I presented the findings related to specific clinical health outcomes and used case scenarios and contextual notes data to link the outcomes to both the broader contextual and structural issues that influenced health and health care, and to nurses' roles in influencing continuity of care. These findings exposed gaps in health and in health services, which were represented by a notion of fragmentation, or discontinuity of patient care.

In this chapter, I present an interpretation of the findings related to the process of relational engagement between nurses and patients. The analysis presented here was shaped in part by preliminary work I had done as a philosophical exploration of the moral and ethical bases of nurses' relationships with their patients (Tarlier, 2004). This preliminary exploratory work related to nurse-patient relationships had evolved from my earlier master's thesis research with experienced outpost nurses, who "viewed their relationships [with patients] as being essential to their ability to influence positive health outcomes" (Tarlier et al., 2003, p. 183). My previous work on relational issues in nursing practice presented itself as a useful lens through which to interpret nurses' relationships with patients, as these emerged as an important focus of the observational and interview data of the present study. In Chapters Seven and Eight, I present a theoretical analysis and interpretation of the findings of this study that integrate and build on this previous work.

Nurses' active engagement with patients both enables and mirrors "responsive" relationships between nurses and patients. Responsive relationships are conceptualized as relationships that reflect respect, trust and mutuality within the relationship (SmithBattle, Drake, & Diekemper, 1997; Tarlier, 2004). Browne (1995) explored the meaning of respect specifically within nurses' relationships with First Nations people and identified five key characteristics of respect: (a) treating others as inherently equal and worthy, (b) accepting others, (c) willingness to listen to others, (d) attempting to genuinely understand another and the other's situation, and (e) sincerity within relationships with others. Effective relational engagement therefore implies that nurses negotiate intersubjectivity within relationships by acknowledging and engaging in these relationships from the patient's standpoint (Tarlier). Relational engagement also implies that nurses negotiate intersecting paradigms by creating "common space in which to engage with the patient despite possibly differing world views (e.g., culturally disparate world views)" (Tarlier, p. 239).

In this study, nurse-patient relationships that did not convincingly demonstrate the characteristics associated with effective engagement and the formation of responsive relationships were conceptualized in terms of nurses' disengagement from patients and from the process of providing patient care. The following two excerpts from field notes taken during observations of nurse-patient interactions illustrated nursing behaviours that were characteristic of disengagement in nurses' encounters with patients. The first observation was made during a patient visit for routine prenatal care and was recorded as a field note:

The nurse has great difficulty finding the FHR [fetal heart rate]. After trying for some time, she goes out of the room saying she's going to get one of the other nurses to come in to help. She comes back after a few minutes with a second nurse and they eventually find the FHR and everyone (especially the patient) looks much relieved. This hunt for the FHR took about 15 minutes. One of the nurses did ask the patient once if she was "hurting her" (i.e., pressing too hard on her abdomen with the Doppler) and the patient indicated that was so, but the nurse continued what she was

doing. As in a previous observation, after the exam the nurse asked the patient to sit up, then turned away, and only turned back to assist the patient after leaving her to struggle first [to a sitting position].

In this example from the data, the nurse asked the patient if she was hurting the patient and then disregarded the patient's affirmative response. The nurse then turned away rather than extending a hand to assist the patient to sit up on the exam table (often awkward for pregnant women to manage). During this interaction the two nurses discussed the task of locating the FHR between themselves but largely disregarded the patient. This encounter reflected more the nurses' focus on the task than it did a deliberate attempt to slight or ignore the patient. Nurses who have not had the opportunity to develop confidence in their prenatal primary care skills (as this nurse had self-identified prior to the observation) may tend to focus on the task rather than on engaging with the person; a certain level of expertise may be necessary before nurses are able to comfortably shift their focus from the task to the person. Knafl (1978) and Roberts, Tabloski, and Bova (1997) had similar findings in research related to the process of competency development by inexperienced nurse practitioners. Moreover, being unable to locate the FHR may have acted as an additional source of stress for the nurses, and as well, my own presence as an observer may have contributed to the nurses' anxiety about "performing" the task of locating the FHR. However, if nurses who provide prenatal care lack the requisite level of expertise and patients come to expect that they must endure an exam where the nurses' focus is on the task rather than on the patient as a person, this could have important consequences for continuity of care. Patients may perceive such detached behaviours as a lack of engagement on the part of the nurse. Might this be a reason why women might not attend prenatal visits?

The second observation, offered here as it was recorded as a field note, offers another illustration of relationally detached behaviour. This observation was made during a patient

visit that involved a mother and a 13-month-old toddler, brought to the Nursing Station for assessment of a fever and skin infection:

The nurse flipped to the back of chart and checked the Child Health Record; she found that the child (now aged 13 months) had had no immunizations. The nurse asked the mom why the delay, mom replied that Monday (Well Baby Clinic day) is a hard day for her to get to the clinic. Nurse told mom "It is important for babies to have their immunizations kept up-to-date" but offered no further elaboration, teaching, educational materials, etc., and made no further effort to elicit information from mom re: why the immunization delay. The nurse did advise mom that the PHN would "probably" be receptive to making a special arrangement to give the immunization on a day other than Monday. The nurse made no further effort to connect mom with the PHN. The nurse treated the child for impetigo (i.e., dispensed an antibiotic), and provided appropriate teaching re: treatment and hygiene. The nurse found that the mother has no running water at home, advised the mother she could bring the child to the Nursing Station to use the washing facilities here.

The nurse in this example, like the nurses in the previous example, focused on the immediate task but made minimal effort to engage with the infant or the caregiver on an interpersonal level. My field note also noted that this child was "very small, petite, pale, with a tired 'asthmatic' looking face, an occasional harsh unproductive cough, weight was 10 kilograms at age 13 months". This infant appeared to be well underweight for age. I later plotted the infant's weight on a growth chart following this observation and ascertained that s/he was below the 5th percentile line. Significantly, while the nurse had weighed the child for the purpose of calculating a medication dosage, she did not question the weight or plot it on the growth chart in the child's chart. This child's risk of failure to thrive went unnoticed by the nurse.

As in the previous example, the foregoing excerpt suggested that inadequate clinical preparation for the primary care role or limited experience in the role³⁰ might have been part of the dynamic that contributed to the nurse's unintentional lack of engagement with the

³⁰ Notably, the nurse in this observation had recently completed the PC Skills Course but had limited experience working in the primary care role.

patient's caregiver. Inadequate clinical preparation was reflected by the nurse's incomplete assessment of the child and her lack of critical examination of assessment findings (e.g., small for age, pale, unwell appearance). It was possible that by engaging more effectively with the mother in this scenario, the nurse may have been more receptive to picking up on the available clues that suggested this child's health status was compromised. For example, by engaging effectively with the mother, the nurse may have elicited information that might have helped her to understand *why* this mother found it problematic to access the Well Child Clinic.

The lack of effective relational engagement demonstrated in the observational data held implications for nurses' ability to influence continuity of patient care and ultimately, patient health outcomes. Nurses' engagement with patients on an interpersonal level held obvious implications for relational continuity, in that relational continuity by definition depended on the existence of a patient-provider relationship. Moreover, the findings of this research suggested that informational and managerial continuity were also dependent to a degree on the nurse-patient relationship. Without the commitment and obligation to an individual patient that were implied within the context of a relationship, patients often lacked an advocate to ensure the continuity of information transfer and to take responsibility for management continuity, particularly when care was shared among different providers. Relational engagement is explored here through three sub-themes that emerged from this study: (a) the process of othering, (b) the normalization of risk, and (c) role disorientation. Each of these sub-themes offered an interpretive lens through which to explore the dynamics that underlay nurses' disengagement from their patients and the implications disengagement held for continuity of care and patients' health outcomes.

The Process of Othering: Issues Influencing Distance in Nurse-Patient Relationships

Othering may be defined as a process of differentiation, wherein people are set apart on the basis of perceived or supposed difference from the dominant culture (Browne, 2005; Browne & Fiske, 2001; Johnson et al., 2004). The process of othering reinforces negative stereotypes and may propagate inequitable power dynamics between groups and in consequence, "persons who are treated as other often experience marginalization, decreased opportunities and exclusion" (Johnson et al., p. 254). In the present study, observational and interview data suggested that othering was reflective of the different world of the local community that non-aboriginal health care providers perceived as being different from their own worlds. For example, the same nurse who said "this is like a third world country here.... it's disgusting, atrocious" also remarked, "I don't think it matters how close you get or how much you're involved in the social activities, we're white, they're aboriginal." As Browne pointed out, framing inter-cultural or inter-racial relationships in terms of "us" / "them" binaries (p. 79), as this nurse did, reflects the "popularized assumptions" (p. 22) that permeate wider social discourses in Canada and play a role in shaping some peoples' constructions of aboriginal people.³¹ Thus, the othering practices observed in the data of this study represented individual nurses' mirroring of broader social discourses about aboriginal people, rather than an intentional or even conscious effort to engage in practices or behaviours that reflected othering.

In a study of health care encounters between South Asian women and health care providers, Johnson et al. (2004) identified three forms of othering that appeared to be

³¹ Browne (2005) discusses how broad social discourses, described as common ways of thinking and talking about social issues that reflect entrenched assumptions of the dominant culture, influence "how it is that health professionals come to hold the knowledge and assumptions that shape their views of particular patients or patient groups" (p. 64-65). Browne offers the example of how popular media campaigns designed to increase public awareness of fetal alcohol syndrome have inadvertently perpetuated an image of aboriginal women as "negligent and uncaring" mothers (p. 67-68).

associated with unsatisfactory encounters: (a) essentializing explanations, (b) culturist explanations and (c) racializing explanations. Although these were described as interrelated and overlapping concepts, it is possible, for analytic purposes, to differentiate among specific examples of each. Examples of these forms of othering were evident in the observational and interview data of the present research. Additionally, paternalizing behaviours and explanations emerged from the data of the present study as a variation, or fourth form of othering. Examples in the data of these four forms of othering offered a framework for examining specific othering behaviours that were construed as creating distance in interactions between nurses and patients, thereby fostering disengaged interactions.

Essentializing explanations were statements or observations about an individual or group that health care providers perceived as being different from themselves or to the mainstream society with which they identified. Essentializing explanations offered a rationalization of perceived differences, such as culture, race, or health practices, which involved decontextualized overgeneralizations. That is, these overgeneralizations tended to be disconnected from the socio-historical and political context of the individual or group in question (Browne, 2005). Johnson et al. (2004) found one focus of essentializing explanations was the perception of some nurses that patients failed to take responsibility for their own health. Similarly, essentializing explanations wherein nurses reflected a broader social perception that aboriginal people were inappropriately dependent on health care providers, were also evident in the data of the present study, as illustrated by the following excerpt from an interview with a non-aboriginal nurse participant:

I don't find the people are as educated; it's like, "Well, are you going to make me a doctor's appointment?" "You should be making your own doctor's appointment so that you know when it is, it's not *my* responsibility, it's not *my* health." They become so dependent on the nurses for everything that they can't even make that step to go just down the hallway and make their own appointment; they want me to walk down
there. "Well are you going to make it?" "No, I think you can walk over there." Like, they've become so dependent and I'm trying to teach them to be independent. I mean, it was frustrating when, you know, moms don't even know how to take care of their own children, they're constantly looking at the nurses to help them through this, this crisis, medical crisis and it's not even a medical crisis.

Here, reflecting broader social perceptions, the nurse attempted to rationalize perceived differences in taking responsibility for personal health and the health of children by offering an overgeneralization that failed to consider the larger socio-political context of health services for aboriginal Canadians, which have historically fostered dependence on health care providers (O'Neil, Lemchuk-Favel, Allard, & Postl, 1999). The essentializing explanation offered in this example also failed to acknowledge the socio-political context of child-rearing in aboriginal communities that experienced family and social disruption as a result of the residential school system (Kirmayer, Simpson, & Cargo, 2003). Viewing behaviour in this decontextualized fashion enabled the nurse in this example to voice a patronizing and superior stance to the aboriginal people about whom she was making a generalization. Rather than attempting to negotiate intersubjectivity (i.e., to engage with the issue of perceived dependence from the patient's standpoint), this nurse explained the perceived differences by essentializing, thereby demonstrating a lack of relational engagement from the nurse-patient relationship.

A second form of othering identified in the previous research (Browne, 2005; Johnson et al., 2004) was culturist explanations. Culturist explanations were defined as explanations wherein behaviours were attributed to the cultural background of an individual or group, or wherein personal characteristics were attributed to culture. For example, failure to participate in health-screening programs was attributed to patients' cultural background rather than being viewed as, for instance, an access issue, or as an individual decision to not participate (Browne, 2005; Johnson et al., 2004). The following excerpt from an interview

shows how a nurse in this study used a culturist explanation, based on information that may be characterized as a persistent colonial myth, to account for what she perceived was promiscuous behaviour:

Traditionally, like years and years ago before the white man ever came into the communities, you know, was there promiscuity among them, among the tribes? You know, because you find that a lot now. Well, look at the STD rate. Was that something that the white man brought? I don't know because I don't know enough about their history. I mean, probably early pregnancy has always been, because even in our culture I mean, my grandmother had 13 children, you know what I mean, and she started out at a young age having children, so that's not just an aboriginal problem, that, that was happening years ago too, but I just wonder if there was, um, a lot of, um, promiscuity even back then, I don't know.

Culturist explanations, in combination with the distinction drawn between "us and them", were used to explain patterns of health care and health service use that nurses perceived as being different to those of the dominant culture in mainstream Canadian settings. Relying on culturist explanations that were embedded in a wider social discourse about aboriginal "promiscuity" prevented nurses from seeing alternative explanations for behaviors they perceived as "different" and therefore attributed to aboriginal culture (Browne, 2005). Attributing patterns of health care use to culture thus prevented nurses from seeing how local social conditions and broader contextual issues influenced health care use.

In their study of South Asian women, Johnson et al. (2004) noted a contradiction between participants' focus on "non-compliance" and non-participation in health care on one hand, and a perceived overuse, or inappropriate use of health services on the other hand. Data in the present study supported similar observations. Nurses tended to view the high patient caseload and after-hours calls in particular as inappropriate or unreasonably demanding on the part of patients. Nurses tended to attribute the high patient caseload to patients' failure to take responsibility for their own health, or as a result of non-compliance with previously recommended health care strategies. After-hours calls, including inarguable emergencies,

were also at times "blamed" on the patient, who was perceived to have brought the problem on him or herself, often through alcohol use or other behaviours that nurses viewed as being irresponsible. The following excerpt from an interview with a non-aboriginal nurse illustrated a culturist explanation related to patient blaming and patients' supposed misuse of after-hours health services:

Last night there had to have been 8 calls after 12 o'clock or, you know, 7 at least and, you know, not one of them needed to be seen until morning - you know, "So you have heartburn and you wouldn't come in because you went to bingo but you would phone at 1 o'clock in the morning. As soon as you can't sleep, you know, why are you doing that?" "Well I'm sorry but I don't need to be getting up." There are things that they call for that they could call in the morning.

The issue of patient compliance was closely linked to health care professionals' perceptions of First Nations patients as sometimes negligent about taking responsibility for their own health. That is, reflecting broader social perceptions (Browne, 2005), non-aboriginal nurses perceived that patients failed to follow through on health or treatment advice because patients didn't *want to* do so. That is, these nurses perceived that patients were not responsible enough to manage their own health. By using a culturist explanation to rationalize patients' supposed non-compliance, nurses often failed to appreciate or acknowledge the role of context and history in determining actions taken at an individual level. This was an important point upon which in this study, the non-aboriginal nurses in particular subconsciously assigned difference to First Nations patients, and therefore, an important basis of the othering that was observed in the study site, as the following excerpt from an interview with a non-aboriginal nurse participant revealed:

People here, they wake up, "Oh, I think I have a pain; I better call the Nursing Station." They'll call any time, day or night. "I have a pain." "Well what did you do?" "Oh, I don't know." "Did you try any Tylenol?" "No, I just called." But, no, it doesn't matter if it's a headache, a toothache or anything – "Did you try something?" "No." (laughs). "Do you want to, you know, take a Tylenol and see if it works? You know, Tylenol usually works if you have a headache or if you have a toothache, try,

you know, just give it a go" but, no, the first thing they do is get up and phone. They don't wait five minutes.

Nurses frequently voiced frustration or impatience with patients who they viewed as

unnecessarily demanding, or whom they perceived had orchestrated their own problems

through irresponsible behaviour (e.g., drinking) or being non-compliant with medical advice

(e.g., not taking medications). One First Nations nurse framed the notion of differing value

systems in terms of nurses being better able to understand the broader issues that were

grounded in the historical and socio-political background of aboriginal health:

P: You try to change people's attitudes, you can't, you're only here for a while. How can you change something that's been here for a hundred years? And that's been passed down? You've got to, first of all, change that whole system of people's thinking.

R: Do you think that frustration comes out when dealing with patients sometimes?

P: Well, there's that whole issue with compliance, "Why did you not take your morning medicine?" "Well, I can't take it because I get up at three o'clock in the afternoon". So then there's a way you can adjust [the medication schedule] and they say, "Yes, I'll take it when I get up." So I just tell them, "take your medicine when you get up and take it again in another six hours."

R: So maybe if the nurses appreciated more what people's lives were like, they could do what you do more - work out what they want to do with what the patient needs to do? [i.e., negotiate]

P: Yes, and a lot of the frustration is on both sides.

By linking the issue of patient compliance to social conditions within the community and the

larger historical and socio-political context of aboriginal health, and by linking nurses'

perceptions around patient non-compliance to their lack of knowledge related to this context,

this First Nations participant implied that the process of othering was associated with nurses'

lack of knowledge about aboriginal health issues.

Racializing explanations were the third form of othering described by Johnson et al.

(2004; also by Browne, 2005). Racializing explanations were usually couched in "politically

correct" terms, suggesting that providers understood acceptable versus unacceptable language concerning race, a finding also noted by Browne. Nevertheless, at times the data in this study reflected behaviours or discourse that I interpreted as reflecting the subtly discriminatory or racist themes that are entrenched in Canadian social discourse related to aboriginal people (Browne). As Johnson et al. explained, "What is particularly problematic about these racializing explanations is that they are used to reinforce otherness and seemingly deficient qualities" (p. 264). The following example from an interview revealed how racializing discourses subtly but essentially denigrated the group of people being described. In this case, a non-aboriginal nurse was discussing aboriginal nurses:

I'm starting to see a lot more Native nurses in the Nursing Stations than I did years ago. I don't know if that's going to be a good thing or what because again, we've got work ethics that I'm seeing that, you know, they just don't take it as seriously as I would. If I'm supposed to be at work, I'm there at work and, you know, that kind of thing. It might be a good thing for some but you always have the good and the bad. I mean, it would be better because they can understand the language and such, but then again, sometimes you're not accepted amongst your own people.

In addition to illustrating how racializing explanations reinforced supposed deficient qualities of nurses of aboriginal ancestry, this excerpt also illustrated the "us-them" dynamic that typified many participants' discourse. As Johnson et al. observed, "terms such as *us* and *them* may seem inoffensive but are reflective of wider social issues" (p. 268). Nurses' ability to engage effectively with patients at both the individual and community levels was thus shaped by the wider contextual and social issues that have been presented as problematizing aboriginal health.

During the course of data collection I overheard more than this single instance of transparently racializing discourse, although it did not occur commonly (at least that I was aware of). Neither First Nations patients nor health care professional or para-professional staff ever referred to such discourse or behaviours on the part of non-aboriginal health professionals. Moreover, any suggestion I made during interviews with First Nations participants (i.e., health professionals, para-professionals or patients) that nurses might at times treat patients with less than respect was met with denial, as this excerpt from an interview with a First Nations nurse suggested:

R: Are you generally satisfied with the kind of care people get here?

P: Yeah, yeah, I'm very satisfied with the services that they get here.

R: Okay. And do you think people are treated well when they come to the Nursing Station?

P: Oh yes.

R: Yeah, okay. With respect and ...

P: Yes.

However, a comment from a non-aboriginal nurse relatively new to northern communities suggested that while racializing discourses did occur, not all non-aboriginal nurses engaged in the process of othering to the same extent: "I get the feeling some [nurses] are, I don't know, they're kind of stereotypical with people and they shouldn't be. It's kind of sad when they're not really giving these people a chance to prove themselves".

The evident contrasts between these excerpts suggested that despite openly observable behaviours attesting to othering practices in the Nursing Station, First Nations nurses and para-professional staff resisted or were reluctant to acknowledge these practices. This may have been a variation of what Johnson et al. (2004) described as "trying to fit in" (p. 264), that is, to "fit in" with colleagues in the Nursing Station who were predominantly non-aboriginal by not acknowledging that such behaviours were demeaning or problematic. Alternatively, not acknowledging racializing or discriminatory behaviours may have been an effort to avoid disturbing the status quo of a situation where non-aboriginal health care providers continued to wield power over access to needed health services (Browne & Smye, 2002; O'Neil, 1989). Paternalizing explanations were a fourth form of othering that was suggested by the data of this study. Paternalizing explanations or behaviours reflected an authoritarian, paternal or maternal stance on the part of the nurse. By situating the nurse as the parent-figure and the patient as the child-figure, paternalizing explanations preserved the traditionally privileged and more powerful position of the nurse within the nurse-patient relationship (Browne & Smye, 2002; O'Neil, 1986, 1989). The following observation, recorded as a field note, demonstrated paternalizing behaviours:

I was in the front office this evening and overheard the nurse on-call taking a phone call from a patient. She spoke loudly and forcefully. Her tone was chastising, blatantly paternalistic as she spoke to a mom who was apparently calling re: her 10-month-old infant's lack of a bowel movement over the past 5 days. Nurse: "You mean to tell me he hasn't had a poop for 5 days?! (disbelief). *Why* are you calling *now*? I don't know why you would let it go for so *long* before you called. Breastfed babies shouldn't *get* constipated!"

Paternalizing explanations were also evident in nurses' discourse, as this excerpt from an

interview with a non-aboriginal nurse revealed:

We're White, they're Aboriginal, this is their culture and if they don't want you to change it, you're not going to change it. You're here to help them, and really, we're coming in because they want us to come in here and help them and look after them, but whether they actually want you to change -? You know, they want you to look after the problem when it happens.

This excerpt indicated a paternalizing stance by suggesting that "White" nurses were responsible for "looking after" aboriginal patients, who were presumed to be incapable of looking after themselves. There was also the subtly implied critique of aboriginal peoples' resistance to having their culture "changed" by "White" people. This attitude on the part of nurses revealed a paternalistic or colonial stance that reflected both the colonial roots of aboriginal health services and the pervasive social discourses that influenced nurses' relationships with aboriginal patients (Browne, Smye, & Varcoe, 2005; O'Neil, 1989), and that ultimately constituted a barrier to nurse-patient engagement.

Othering practices were based in and reflected popularized assumptions and the broader social discourses rather than nurses' individually held biases (Browne, 2005). Nevertheless, othering practices influenced nurses' interactions with patients at the individual level. The examples from the data presented above suggested that the process of othering influenced how nurses conveyed acceptance of, and respect for aboriginal patients. Respect is the foundation of ethically based relationships (Browne, 1995); without respect, relationships must also fail to reflect trust and mutuality (Tarlier, 2004). Thus the process of othering precluded the formation of ethically based, responsive nurse-patient relationships and instead created distance between nurses and patients. This distance fostered disengagement. Without relationships that were based on respect, trust and mutuality, nurses compromised their ability to influence health outcomes (Browne & Fiske, 2001; Tarlier et al., 2003) and continuity of care at the interpersonal level.

Othering discourses emerged as an important sub-theme in this study. At a broad societal level, othering perpetuates social inequities and thus social marginalization (Browne & Fiske, 2001). At the meso and micro levels of health services delivery, community relations and provider-patient encounters observed in this study, othering perpetuated inequitable power dynamics between patients and providers (also described in Browne, 2005 and Tarlier, 2004), and thus contributed to marginalization in health care. Othering practices in health care services can create barriers to access to services (Browne; Browne & Fiske; Johnson et al., 2004; Papps & Ramsden, 1996). In this study, the process of othering also created space for a secondary process to occur, the normalization of risk, which is discussed in the next section.

Normalization of Risk: Perpetuating Complacency

The idea of normalization of risk factors was first presented in the discussion of Case Scenario 6.1 and 6.2 in Chapter Six, in the context of prenatal care. Normalization of risk was an unexpected finding of this research that offered important insights into nurses' enactment of nursing competencies and engagement with patients. Importantly, I am using the term "normalizing risk factors" to represent a different conceptual meaning in this work than it has sometimes been used to represent in the medical literature. Here, by normalization of risk factors or normalization of risk, I mean that risk and risk factors have become accepted de facto as representing the "normal" or usual state of health. In contrast, in the instances where the expression appears in the medical literature, the meaning has been that an individual's risk factors (e.g., for a certain health condition, such as cardio-vascular risk factors) have been changed, decreased or mediated so as to represent only a "normal" degree of risk to that individual.

The process of normalizing risk in the study site was driven by the prevalence of both specific health conditions and poor health in general in the community, as well as by the prevalence of social issues that contributed to poor health and that also influenced patients' access to and use of health services. The prevalence of these factors fostered a process wherein they became normalized within the community, and by patients and health care professionals. While most health professionals were seemingly unaware of the process of normalization, one provider who was more familiar with health problems in the community was cognizant of and articulated the normalization that had occurred in response to the high incidence of conditions of poor health such as diabetes, hyperlipidemia, hypertension and obesity. This participant also asserted that both "a huge amount of developmental delay in children" and spousal abuse were so prevalent as to have become "normalized" in the

community. Another nurse participant stated "we have so many diabetic people in the community, I would say over half of the people that I see [are diabetic]". The high burden of disease that existed in the community and living with the risks associated with having or developing illness had become accepted, or normalized as being part of "the way of life" there.

There was also a perceived high prevalence in the community of social issues such as substance abuse, domestic abuse, and violence. A nurse participant stated, "Their social problems are so deep. The sexual assaults, the incest, the alcoholism... everything. I mean it exists everywhere but because they're smaller communities it seems like it happens more because you see it more." These issues tended to reinforce nurses' perception of the community as different, in a negative sense, compared to communities in other areas of Canada with which they were more familiar and which rightly or wrongly, they perceived experienced these social issues to a lesser extent. Additionally, nurses were exposed to social issues in the community primarily through what they perceived as the high numbers of patient visits for treatment services during clinic hours, and the high number of after-hours calls from patients. Since nurses' main contact with the community was through the Nursing Station, their perceptions of health and illness in the community tended to reflect the situations they were exposed to in the Nursing Station. Because the insular "bubble" of the Nursing Station limited nurses' exposure to the community's more positive attributes, the illness-oriented aspects of the community that they were exposed to through their work tended to shape nurses' perceptions of the community as a whole. Thus, the high prevalence of social issues and poor health that nurses were exposed to and that became normalized in the course of their work was extrapolated to and also normalized at the community level.

Community residents lived with everyday risk factors for poor health that would be considered unacceptable in mainstream Canadian communities, and through the process of normalization, health care providers accepted this situation as being part of working in this different world. For nurses, part of being in the other world that was defined by the context of the Nursing Station and by extrapolation, the community, included providing primary care services in a setting that was defined not only by inequity and marginalization, but also by illness and injury, to an extent that nurses found overwhelming when they arrived in the community. One participant described her initiation to Nursing Station work: "When I came here everything seemed to be stressing me out. It was the isolation, being in a different culture... but the work aspect of it had me *so* stressed out that it was affecting everything else". As presented in Chapter Five, not only did nurses arrive in the Nursing Station inadequately prepared for primary care practice, they were faced with an exceptionally challenging patient population in terms of complex disease management and co-existing social and health issues.

The process of assigning difference and othering may have acted as a subconscious coping strategy that allowed nurses to maintain a sense of separateness and distance from the challenging situations with which they were confronted. Observational and interview data showed that nurses were confronted on a daily basis with patient situations they felt helpless to remedy, such as children who were brought to see the nurse for treatment of impetigo, but who lived in a home that had no running water, or diabetic patients who could not afford to make healthier food choices. While nurses may have appreciated in theory the link between social and health conditions in the community and the magnitude of illness they encountered on a daily basis, few of the nurses in this study possessed competencies related to addressing health issues at the community level. Thus, nurses focused on what they felt they could

manage, which was the day-to-day task-oriented work of providing treatment to those patients that walked through the door, yet knowing that the treatment they could offer was often only a "band aid" solution, given the root causes of poor health in the community. Thus, maintaining a sense of distance may have offered nurses a strategy for coping with the sense of helplessness and frustration that many of them conveyed during interviews. In discussing how nurses managed the broader challenges imposed by the social determinants of health, one nurse participant stated:

Diabetes is a huge complex health issue and the nutrition is really poor and the poor sanitation is another huge issue and you see a lot of really preventable things come in the door and some days it just seems like you see the same thing over and over and over again and that's frustrating... we kind of just deal with one situation at a time.

By normalizing the prevalence and significance of poor health in the community, nurses reframed their Nursing Station work to represent something closer to the work environments they were familiar with and were better prepared to cope with, which was acute episodic patient care. While this dynamic allowed nurses to cope with their work environment, it also fostered an unintentional complacency regarding the prevalence of poor health and the broader issues in the community that contributed to poor health. While most nurses in this study appeared to link health with the social determinants of health in theoretical terms, at the practice level, nurses often failed to link the prevailing social and health conditions in the community with patients' use of health services. In effect, complacency blinded nurses to the real health challenges with which their patients struggled. Working under the assumption that life in the community was "normal", nurses could carry out their work without being continually challenged (on both a practice and an emotional level) by the influence of the broader context of the different world patients lived in, but with which nurses were unprepared to cope in terms of providing comprehensive and holistic patient care.

At the level of the individual patient, when nurses normalized risk, there was a tendency to become complacent towards patients who in a different contextual setting may have been more readily recognized as justifiably deserving of more care or a different approach to care. For example, referring to Case Scenario 6.1, given a different setting, where adolescence and UTI's in pregnancy were less common in the prenatal population than these were in the study site, the adolescent prenatal patient with a UTI in the case scenario may have been more readily recognized as a patient who might have benefited from a more proactive and engaged approach to care, consistent with the literature related to care of adolescent prenatal patients (Health Canada, 2000b).

Complacency was in part the inadvertent effect of a coping strategy that allowed nurses to maintain a distance between themselves and the real world lives of patients, and distance allowed nurses to cope with their work environment. However, the need to maintain distance in their relationships with patients also prevented nurses from recognizing or acknowledging the broader influences that affected patients' health. Therefore, nurses did not engage with patients from either the patients' standpoint (i.e., negotiated intersubjectivity) or from a standpoint that acknowledged the disparity that existed between nurses' and patients' lives, in terms of social status and condition, beliefs, and values (i.e., the negotiation of intersecting paradigms) (Tarlier, 2004). Thus, normalization of and complacency regarding the risk in patients' lives also contributed to the disengagement that often characterized nurse-patient interactions.

Both the quantitative data presented in Chapter Six (see Table 5) and the contextual notes data derived from chart review, observations and interviews attested to the high burden

of disease risk within the maternal-infant population. A case scenario based on contextual

notes from chart data is presented to illustrate the relationship between normalization of risk,

continuity of patient care and health outcomes:

Case Scenario 7.1

Infant delivered at 34 weeks' gestation, weight less than 2000 grams. Apgars were 3/7. Maternal gestational diabetes, pregnancy-induced hypertension. Infant ventilated in NICU for 1 week, discharged from hospital aged approximately 3 weeks. Referral on chart advising that infant to be followed up in Nursing Station in 2 weeks. Infant was first seen at Nursing Station at age 4 weeks (by medical resident), then at 10 to 15 week intervals throughout the first year. Care was provided by a different RN each visit. Significant delay in immunization status, i.e., had 6-month immunization at age 10 months, but was caught up by age 53 weeks. At 12 months this infant was on "Pacific" milk, hemoglobin was 97 g/L. Started on iron therapy, no documented nutritional counseling. Infant was later referred for assessment of possible developmental delay.

INTERPRETIVE MEMO: This was a high-risk infant who required close follow-up, growth monitoring and proactive care, none of which was evident in the chart documentation. Of interest, this chart contains 2 growth charts, one apparently filled in by MDs and one filled in by the nurses. Neither was based on corrected age. Together, these presented a very confusing picture. I speculate whether a more proactive and consistent approach to care, one that included nutritional counseling, might have prevented the development of anemia.

This case scenario contained little evidence to suggest that significant infant risk

factors that included premature birth, very low birthweight, and respiratory compromise at birth prompted health care providers to approach the care offered to this newborn any differently from the usual care offered to healthy full-term newborns. That is, health care professionals appeared to be complacent regarding the degree of risk in this case. Consistent with observations made during nurse-patient interactions in similar situations, nothing in the chart data suggested that providers had engaged with the infant's caregiver in what might be construed as a responsive relationship. A different provider saw the infant on each visit, therefore relational continuity was compromised. The two growth charts that were on the patient chart, neither based on the infant's corrected age, suggested compromised informational and management continuity. Delayed immunizations and the confused picture regarding weight gain during the first year suggested this infant was at increased risk of poor health outcomes throughout the first year.

Normalization of risk was part of the dynamic that along with the process of othering, inadequate clinical preparation, and the challenging work environment, compromised nurses' ability to engage effectively with patients. Disengagement mediated nurses' ability to influence continuity of care and health outcomes. Normalization of risk and complacency also contributed to the role disorientation that nurses experienced.

Role Disorientation: Whose Job is it Anyway?

The nurses' focus on urgent and emergent patient care at the expense of preventive health programs and health promotion was first presented in Chapter Five, when several of the issues that contributed to and reinforced a focus on the treatment role were described. These issues included nurses' lack of preparation for the Nursing Station role, inexperience in the role and being too busy to offer preventive health services. Additionally, nurses lacked opportunities to engage with and interact at a community level, in part because home visiting programs had been disbanded and in part due to the isolation imposed by nurses' living and working in the protected bubble of the Nursing Station. This situation contributed to nurses' decontextualized views of their First Nations patients and further supported the process of distancing described in the foregoing section. Home visiting has traditionally provided FNIHB nurses with an opportunity to gain entrance to homes in the local community and "see" first-hand the social context of peoples' lives, thereby (in theory) stimulating nurses' critical thinking about the links between the social determinants of health and patients' health issues in the community. However, in the study site, a culture had evolved within the organization of the Nursing Station wherein it had become acceptable and even the

expectation that the Nursing Station role did not include certain aspects of the public health role, even though this was inconsistent with FNIHB's expectation of the role of nurses working in the study setting, as outlined by the scope of practice document (Health Canada, 1994) and the competency assessment tools (described in Chapter Three) (Health Canada, 2001c, 2001d).

At the regional level, FNIHB's stance was that nurses were expected to function in a community health role that traditionally has included responsibility for public and preventive health programs in the community, as well as for treatment services, and FNIHB continued to provide orientation and basic preparation in these areas for new nurses. However, nurses received inconsistent or conflicting messages regarding work expectations. Both nurse and administrator participants confirmed that content related to nurses' public health role was included in orientation. One nurse stated: "During the whole orientation I was under the impression that it was pretty much a split between treatment and public health because that was what we were told". Yet, nurses received a different message once they got into the workplace: "...then when I got here, public health was all but transferred to the Band and FNIHB [i.e., the Nursing Station] had just the treatment aspect of it". Despite an orientation that reinforced to nurses that community health was an expectation of the Nursing Station role, when new nurses encountered the reality of practice, they found it was the treatment role that was primarily valued within the organizational culture of the study site.

Three main issues influenced and reinforced the culture that had evolved within the Nursing Station organization related to nurses' roles: (a) workload demands, (b) the transfer of responsibility for public health nursing to the Band, and (c) the influence of key individuals within the organization. In the study site the public health aspects of the Nursing Station nurses' role had been eroded by neglect: being short-staffed, being too busy and not

having time for public health activities had become justifications for not carrying out these activities. Over time, and then with the implementation of a dedicated public health nurse position, perceived responsibility for these activities shifted out of the Nursing Station, and with it, nurses' understanding of this as a continued expectation of nurses working in the Nursing Station. However, in the study site, public health nurses continued to struggle to establish basic public health programs and to "catch up" with immunizations and school health programs. Nursing turnover and nursing inexperience with the public health role challenged implementation of the public health nursing role in the study site. As described earlier, some Nursing Station nurse participants viewed the implementation of a public health nursing role (somewhat irrationally) as a panacea to the problem of needing to catch up with public health responsibilities that had fallen behind, most notably, infant immunizations. However, as one Nursing Station nurse observed during an interview:

They've [the Band] taken over the immunization program but they haven't really taken it completely over, so we still get babies in for immunizations and such. Um, they're supposed to do the immunizations at the schools, the preschoolers and hep B, like all those things. Well, they're way behind.

Thus, despite the implementation of a dedicated public health nursing role in the community, there was a continued expectation on the part of FNIHB administrators that nurses employed in the Nursing Station would continue to fulfill the traditional public health aspects of their role during this transition time. Yet it was evident through some health professionals' language and through field observations that some nurses viewed the implementation of the public health nursing role as relieving the Nursing Station nurses of responsibilities for work that was perceived as public health work. As illustrated by the example from the data that were presented in the introduction to this chapter, nurses were observed on several occasions to withhold infant immunizations and advised the infant's

caregiver to see the public health nurse at a later date. Thus, even when the Nursing Station was well staffed and the nurses were not overly busy, as I observed during one round of fieldwork, nurses did not take up involvement in public health activities, since these had come to be understood as no longer part of their responsibility. New nurses, relief nurses and inexperienced nurses coming into this environment learned through acculturation that contrary to what they were taught in orientation, their responsibility was to provide treatment services, and the public health and preventive aspects of the job were the responsibility of the public health nurse. This understanding appeared to feed into nurses' focus on treatment services, and contributed to a process of normalizing this belief about the nurses' role in this Nursing Station. Thus, in the absence of clear direction and support from higher FNIHB management regarding expectations of the Nursing Station nurses' continued role and responsibilities in providing public health services, nurses experienced varying degrees of role confusion, or role disorientation.

The ambiguity that existed around Nursing Station nurses' continued role in providing public health services was a key source of the conflict that typified the relationship between the public health and Nursing Station nurses. One source of the ambiguity was the lack of clear communication and direction to nurses from higher-level FNIHB management, as illustrated by the following excerpt from an interview with a nurse participant:

There was a lot of animosity and bitterness in the nursing station because the nurses saw the addition of a public health nurse as being the removal of one of their staff nurses, which wasn't the case, but somewhere down the road the Zone Nursing Officer from FNIHB made the impression that if we're going to have a public health nurse who's just going to do public health, they're going to take away one of the positions of the nursing station, so that led to a bit of resentment. I noticed there was a bit of resentment towards the public health nurse, there was a bit of animosity there. There wasn't really a clear differentiation of what she was expected to do. Implementing a dedicated public health nursing position under the operating authority of the Band sent a message to Nursing Station nurses that they would no longer be responsible for public health. However, field observations suggested that part of the ambiguity was also due to the influence of a few key professional personnel within the Nursing Station organization. These were individuals who were "opinion leaders", who held some informal power and influence in the Nursing Station although not necessarily formal authority over directing nurses' work. Through their own focus on treatment and curative services and a tendency to subtly devalue the public health aspects of the role (a phenomenon also noted by O'Neil et al., 1999), these individuals exerted an influence on nurses' understanding of their role, albeit most likely unintentional. Nurses new to the Nursing Station role and without previous exposure to public or community health nursing were more vulnerable to this subtle influence.

Nurses' valuation of the two dimensions of the Nursing Station role were revealed by their perceptions of the education or experience that constituted adequate or "the best" preparation for the role. Nurses' perceptions illustrated a strong focus on treatment; for example, the relative importance that several participants placed on emergency and other acute critical care experience (e.g., ICU). Responses to my query as to what short courses or workshops participants viewed as useful to their Nursing Station role included ACLS (Advanced Cardiac Life Support), TNCC (Trauma Nursing Core Curriculum), PALS (Pediatric Life Support), CPR (Cardio-Pulmonary Resuscitation), work shops on respiratory and acid-base balance, and ECG interpretation workshops. Mention of courses or preparation related to "public health" or preventive aspects of the role (e.g., immunization workshops, TB screening and contact management, women's health) was notably absent from nurses' responses.

Some health professionals articulated a devaluing of the public health aspects of the Nursing Station role. This was illustrated, for example, by the nurse I quoted in Chapter Five, who reduced competencies related to immunization to "giving a needle at the right time", thereby reducing complex knowledge and a high level procedural skill to a simple task. Another nurse similarly reduced the complex knowledge and skill involved in planning and delivering women's preventive health services to the simple task of performing a Pap smear, a complex skill that she suggested could be developed through observation: "working in emergency, I've seen a million of them done". Devaluation of the preventive health and health promotion aspects of the Nursing Station role by some nurses, as well as other health care professionals, reinforced nurses' perception that providing treatment services was the primary focus of their role and thereby also reinforced nurses' role disorientation.

The effect of role disorientation was that nurses learned to perceive their role as being narrowly defined as providing treatment services that were based on a curative approach. To many nurse participants the most similar nursing role in their experience was the role of an emergency room nurse. Similarly to an ER nurse, nurses working in the Nursing Station saw a constant succession of different patients in a day, and seldom saw the same patients in follow-up. However, in the emergency room, while nurses were responsible for the care they provided to patients, they did not hold ultimate responsibility for patient care, and they were not responsible for ongoing care of the patient. These responsibilities belonged to the patients' primary care provider, usually a physician. But in the Nursing Station, nurses were expected to take on the role of primary care provider. One physician participant described the Nursing Station role in terms that made it clear that the role involved being responsible for clinical decision-making as a primary care provider, as this field note revealed:

This is a primary care role and nurses are supposed to be NPs [nurse practitioners] here. They need diagnostic and therapeutic capabilities so they can diagnose and manage health conditions. Dr [name] placed the most emphasis on the need for nurses to be skilled in diagnostics; this would also save a lot of unnecessary medevacs and trips out of the community for patients to be diagnosed by a doctor. However, [Dr stated] there is a great variation in skill; some nurses are very unprepared to be here, even though they are great as ER or ICU nurses in hospitals.

While experienced primary care providers recognized that nurses needed to be adequately prepared to take on the responsibility of providing primary care, the presence of a physician in the Nursing Station for several days a week acted as something of a "Catch-22": Because there was a physician presence in the study site, nurses continued to defer responsibility for their clinical decision-making, much the same as they were accustomed to do in the nursing roles they were more familiar with in acute care settings.

In the study site, the succession of different patients a nurse saw in a day, not seeing the same patients in follow-up, and critically, not having integrated the degree of responsibility for autonomous practice that is a requisite to being a primary care provider (Tarlier et al., 2003) contributed to the process of nurses' disengagement with patients and the process of care by enabling nurses to disassociate themselves from responsibility for both continuity and outcomes of the care they provided. This dynamic was further exacerbated by the findings that supported that nurses in the study setting were often unprepared to practice as a primary care provider and also by the short-term nature of nurses' assignments to the site. For example, a more experienced nurse participant who articulated a broader understanding of the Nursing Station role stated, "A lot of casuals didn't do those extra steps [i.e., to ensure continuity] because they didn't see the long term picture and how it was going to affect the patient's health later on".

In their integrated review of nursing research literature about continuity of care, Sparbel and Anderson (2000a) found that professional role confusion was frequently a

system issue that influenced continuity of care. These authors identified several conditions that contributed to nurses' role confusion:

Role confusion is exacerbated by complex or fragmented systems, lack of clarification of job responsibilities, professional rivalries, territoriality, and semantic differences. Role confusion was manifested by inadequate community staff qualifications. (citing Lishner & Busch, 1994, p. 21)

These same conditions were evident in the findings of the present study. Nurses' role disorientation contributed to nurses' myopic perception of, and therefore disengagement from their role as key players in the process of linking care to outcomes through continuity.

Summary

The process of disengagement reflected the challenges that influenced nurses' abilities to engage in responsive relationships with patients. Responsive relationships were based on and characterized by trust, respect and mutuality and were theorized as being key to nurses' ability to influence positive health outcomes. The theme of disengagement was explored through an interpretive lens organized around three sub-themes. The first subtheme, the process of othering, reflected nurses' mirroring of broader social discourses about aboriginal people and in general, was associated with the use of essentializing, culturist, racializing or paternalizing explanations of patient (and also community) behaviours that nurses perceived as different. In the study site, othering practices influenced nurses' ability to convey acceptance and respect within their relationships with the First Nations patients they encountered in the Nursing Station, thus contributing to nurse-patient encounters that were often characterized by a lack of engagement. The normalization of risk factors, the second sub-theme, reflected the prevalence of poor health and specific health and social conditions in the study site community. Normalizing risk allowed nurses to maintain a semblance of normality in their own work environment and promoted a sense of complacency about the

prevalence of poor health that nurses encountered on a daily basis. However, complacency allowed nurses to remain disengaged and thus distant from the social context of people's lives that influenced their health. The third sub-theme was role disorientation, which reflected nurses' lack of preparation for the Nursing Station role and subsequent confusion regarding the role. Nurses focused on treatment or curative services at the expense of health prevention and promotion activities. The distance that existed between nurses and patients in the study site was the basis of dissonance, the fourth major theme, which I discuss in Chapter Eight.

CHAPTER EIGHT

DISSONANCE: FALLING THROUGH THE GAPS

Introduction

The findings of this research suggested that patients in the study site slipped through the gaps of fragmented health services. This finding was clearly suggested by the quantitative data related to clinical health outcomes presented in Chapter Six, and further substantiated by interpretation of the contextual notes data. Participants readily identified patients that had "fallen through the gaps". However, despite (and in contrast to) these findings, data derived from observations and interviews also suggested that both health professional and paraprofessional participants perceived that overall, patients in the study site received "good" health care and that patients' access to health services and health outcomes were equitable with other Canadians. Thus, dissonance³² existed between some participants' perceptions of health and health care in the study site and the reality that was suggested by the data.

As presented in Chapter Seven, dissonance also existed between the broad, community-based PHC nursing role that was an expectation of practice and nurses' enactment of a role that reflected a curative approach to providing "treatment" services. In essence, instead of primary care being integrated as one integral aspect within a broad-based, comprehensive PHC approach, a dichotomy was created between primary acute care and public health care, resulting in the fragmentation of comprehensive PHC services. In this chapter I examine dissonance from these two perspectives: (a) the dissonance that existed between nurses' perceptions of health and health care in the study site, and the health outcomes that were a finding of this study, and (b) the dissonance between findings related to

³² Dissonance: disharmony or incongruity, as defined in the Oxford Dictionary of Current English (Thompson, 1998).

expectations and enactment of nurses' practice. The significance of dissonance as an overarching theme is explored in relation to continuity of patient care and health outcomes.

There're No Problems Here

Health care professionals and para-professional staff who participated in this study voiced inconsistent views related to the adequacy of health care and health outcomes in the study site. Not only were views inconsistent between these participants, the same individual would often articulate contradictory views, apparently without recognizing the inconsistency. There was dissonance in how participants were able to describe the prevalence of poor health, the social and organizational issues that influenced poor health outcomes, and often even identified certain patients as having "fallen through the gaps", yet few participants acknowledged that these issues may have been associated with health service delivery. As presented in the foregoing chapter, from the perspective of health care professionals, patients were seen as being largely responsible (i.e., to blame) for their own health outcomes, for not taking advantage of the services that were available to them and for being non-compliant, or failing to follow the advice of health care providers. Nurses viewed themselves as providing good care to patients, even as they confided to me that they didn't have the knowledge and skills they believed they really needed. For example, a relief nurse who had been working on and off in the Nursing Stations for the past year asked me not to observe her encounters with patients in Prenatal Clinic because she didn't feel she was "very good at it", yet she believed that attending prenatal visits was an important influence on community health.

During the study period time, a review of the prenatal clinic appointment schedule revealed that approximately 40% of women failed to attend a booked appointment for prenatal care. Nurses largely attributed women's non-attendance to what they perceived as a reflection of the value that women placed on prenatal care. There was little evidence that

nurses gave critical consideration to *why* many patients did not seemingly value prenatal care, or that nurses critically linked the value that was placed on prenatal care with potentially, the care that nurses provided.

Other health care professionals and para-professionals espoused the belief that nurses routinely provided competent care. Similarly, from the perspective of patients and community members, the standard of *health* in the community was described in one breath as being poor, and in the next breath I was told that *health care* was satisfactory and the nurses were "good" (also a finding in Browne's research, 2003). Thus there was inconsistency to the point of incongruity – or dissonance - between the participants' understanding of health, the demonstrable reality of health outcomes (as presented in Chapter Six), and participants' articulated interpretation of how health care related to health outcomes.

Despite acknowledging and describing on one level that patients fell through gaps, the belief that "there's no problem here" persisted with both First Nations and non-aboriginal health care providers in the community. For example, a non-aboriginal health professional stated unequivocally "there is no problem here with acute medicine or acute care access", while shortly thereafter telling me that nurses were often unprepared as primary care providers and that many routine preventive health services were not being offered in the community. A First Nations nurse described how in her role, she often had to "beg" people to come to the Nursing Station:

Sometimes I have to beg people to come to the Nursing Station. There was this one man who was just laying in bed and his temperature was over 38; I said - your lungs don't sound very good, you know, you should go to the Nursing Station and see the nurse there, and sure enough he had pneumonia.

Yet this participant also claimed to be "very satisfied with the services [people] get here". Similarly, other health professionals used expressions such as "we have to hunt people down

[for routine care]", without appearing to critically reflect on why people were seemingly reluctant to seek care at the Nursing Station.

One of the aims of this research has been to explore health and health care in the study site as the effects of a multitude of intertwining influences that originated within multiple layers of context and structure pertaining to health for aboriginal people. Nurses' practice is merely one influence among many that affect the health of patients. However, this caveat notwithstanding, while contextual factors such as lack of transportation or access to childcare undoubtedly presented challenges to some community residents in accessing health services, findings also suggested that aspects of the provision of care itself might have presented barriers to access. For example, as other researchers have also found (e.g., Browne, 2005; Johnson et al., 2004), the process of othering was identified as a barrier to health care access. Most participants in this study tended to gloss over nurses' attitudes to patients and the effect attitudes might have on health care, as for example, one non-aboriginal nurse stated, "[health care providers] can be condescending, maybe not even meaning to be, but it could come across that way". However, some nurse participants did identify the potential consequences of othering practices as a barrier to patients' accessing health care, as the following excerpt from an interview with a non-aboriginal nurse illustrated:

R: Do you think patients pick up on that [stereotyping] attitude?

P: I think they do, they're not stupid people, you can always tell when somebody is talking about you or curling their lip up at you or snarling at you or being condescending to you because you've said something or done something. I don't think that's a fair way for people to have to come in and be treated or to have a medical appointment. Like how many times do we see people come in for a check up? They [only] come in when they're sick, so are they afraid of coming in because of what somebody is going to say?

The nurse in this case suggested that patients were sensitive to how nurses conveyed acceptance and respect (also a finding in Browne's [1995] study), and in response to

providers' demeaning attitudes towards them, avoided coming to the Nursing Station for health care unless they were sick enough to feel they had no choice. That is, this nurse viewed providers' attitudes and othering practices as presenting a barrier to patients accessing routine and preventive health services (Papps & Ramsden, 1996). Thus, the data suggested that othering practices represented one aspect of nursing practice that helped to explain the lack of continuity that was evident in the continuum of routine prenatal and infant care that I was examining through chart reviews.

The patient charts in my sample offered many examples of prenatal women or infants who had presented frequently to the Nursing Station for illness treatment, yet had not attended for routine prenatal or well infant care. For example, the contextual notes data from review of one infant chart revealed the following:

Case Scenario 8.1

Healthy, term infant. Teen mom. Presented at the Nursing Station for a 4-week check. Subsequently seen in clinic 7 times for minor illness before DPTPHIB#1 was given at age 6 months. Of those visits, the RN noted the infant's immunization status on only 1 visit (at 4½ months) and charted "Appointment for immunization when healthy". Subsequent to the 1st month following DPTPHIB#1 (i.e., when eligible for a second immunization), this infant was seen for minor illness 8 times and the immunization status was noted on one occasion, at age 7½ months, when an RN charted and highlighted the need for immunization. Despite this and multiple further visits to health care providers, this infant has evidently never received further immunizations, yet appears to have been in the community throughout this time. Aged about 15 months at the time of the chart review. No documented hemoglobin was found in the chart, despite multiple presentations for minor infections.

Overall impression: unsatisfactory health outcomes at 12 months and multiple potential risk factors that could be contributing to repetitive episodes of minor illness (mainly infections), i.e., anemia, nutrition, low weight gain, not immunized. There is no evidence that these issues were being identified and addressed despite multiple contacts with health care providers.

This case scenario demonstrated that despite many minor-illness related visits to the Nursing

Station, the infant's caregiver had not brought the infant for routine well-infant care at the

times set aside for Well Baby Clinic. Consequently, routine tasks of preventive well-infant

care, such as immunization, and growth and hemoglobin monitoring, had not been carried out. While the case scenario by itself does not offer enough information to suggest the nature of nurses' interactions with the caregiver in this instance, an excerpt from a field note recorded during an observation of nurses' report one morning offered further insight into the possible dynamics that characterized nurses' attitude towards offering routine well infant care:

A relief RN asks re: clarification of what she should be doing when she comes across an infant who is not up-to-date with immunizations, now that there is a Public Health nurse in the community. The NIC says that nurses should immunize kids that are behind. But one of the permanent staff nurses overrides her and says it is more important that kids come on "Mondays" because that is Well Baby Clinic day and "You don't want them coming on Wednesday and then telling others that yeah, you can go in and get the shots any day". She seems to have the last word on this and no one challenges her on this, including the NIC.

This excerpt suggested that while contextual and structural factors may have influenced patients' access to care, nurses' attitudes and beliefs about providing care and dynamics within the provision of care itself may have also played a role in shaping how health services were accessed. For example, this observation revealed attitudes that supported othering: "You don't want *them*" coming" illustrated the "us" / "them" binary described by Browne (2005). While nurses may have felt it was necessary to ensure patients followed "the rules" of the Nursing Station as a means of controlling what were perceived as excessive demands on nurses' time, finding that these attitudes were acceptable in the workplace. Linking the prevalence and acceptability of attitudes that supported othering practices to the data presented in Case Scenario 8.1, supports the finding that othering practices were one influence affecting continuity of care and health outcomes.

The complacency that I theorized was an effect of the normalization of risk, as presented in Chapter Seven, was undoubtedly part of the dynamic underlying health care providers' belief that all was well with the provision of health services in the study site. While the ways in which patients accessed health services were often noted to be problematic (for example, when patients were labeled as non-compliant), this was viewed as "normal" behaviour for patients within the study site. In normalizing behaviour in this way, health care professionals avoided thinking critically about the reasons underlying the behaviour and why it was so commonly observed. Providers were thus also able to sidestep thinking critically about how providers' practice itself may have influenced patients' use of health services.

As noted above, during formally taped interviews, First Nations health care professionals and para-professionals professed to believe that there were no problems with the provision of health services in the study site. However, other data from observations and informal conversations suggested that the version I was capturing on tape might have been the "politically correct" version and that in fact, there may have been less satisfaction with health services within the community than people were prepared to admit openly. The inequitable power dynamics within the historical context and structures of health services to aboriginal people (Browne, 2003; O'Neil, 1989) undoubtedly influenced this finding. Browne (2003) similarly found that First Nations women in her sample were unwilling to place themselves at risk by offering criticism of the nurses: all nurses were "good" (p.183). An interview with a non-aboriginal nurse participant prompted me to question whether patients were as satisfied with the provision of health services as I was being told during interviews with First Nations participants:

P: I've had people say to me, "'Oh these are your pills', that's your answer for everything, that's what you go to the Nursing Station for is to get Tylenol".

R: That's what the local people would say?

P: That's what people have said to me, you know, [said in a sarcastic tone] "That's what the nurses do for you, they give you Tylenol isn't it?" And I'm like, wow, I didn't realize people felt that way.

R: So you're hearing people say that they understand that's not enough to really change their health?

P: Yeah.

In this exchange the nurse described how patients articulated dissatisfaction with the health services they received by describing how patients recognized when their real health concerns were not being adequately addressed, which was at odds with what I was being told in the "official" version I heard during taped interviews with First Nations nurses, administrators and CHRs.

The support that my study engendered with First Nations health care professionals, para-professionals and community members in the study site also suggested to me that people in the study site were not as uniformly satisfied with health services as some participants had implied during interviews. In initially introducing the study to participants and to local residents I most often described it as being a project with the aim of exploring how nurses worked in the local health care system and "how patients fell through the gaps". This expression resounded with people, many of who immediately offered to share their stories with me of how an uncle or an elder or a child had "fallen through the gaps". The same First Nations nurse who told me that she was "completely satisfied" with the care patients received also told me "this is important work you're doing". This study received the support that it did because local residents perceived there were issues in the provision of health services. These findings suggested dissonance existed between perceptions of health care and health outcomes.

The effect of dissonance was that it perpetuated the status quo of health service delivery in the study site by preventing health care providers from thinking critically about the problems they identified with health and health care in the community but disassociated from the provision of care per se. Providers conveyed a sense of denial regarding the influence health care exerted on health dynamics in the community, and thereby avoided recognizing the implication that changes were mandated in the way health services were delivered.

The Fragmentation of Primary Health Care

A second aspect of dissonance began to emerge during the initial stages of data collection and fieldwork of this research. This was the dissonance that became evident between the PHC approach that was espoused by FNIHB and the provision of services in the study site, which emphasized a curative model of care and a concurrent devaluing of preventive services and health promotion. The significance of this finding became increasingly apparent as interpretation of the findings progressed and eventually consolidated. In effect, a dichotomy was created between the espoused model of PHC and proffered health services, or between the rhetoric and the reality of practice, that represented fragmentation within the PHC model itself.

As discussed in Chapter Two, PHC is based on a broad understanding of health that recognizes the influence of the social determinants of health that arise from the social, physical, political and economic environments and mandates that these be considered within the health care model (WHO, 1978). Primary care, or treatment services, represents the curative aspect that is one aspect within a comprehensive and multi-faceted PHC approach.³³

³³ The curative aspect as a singular approach to health service delivery has also been characterized as a "medicalized" approach to patient care. I have minimized the use of this language because of the connotation

The traditional model of health service delivery by nurses employed in Nursing Station settings has been held up in the literature as an early model of comprehensive PHC (De Leon-Demaré, Chalmers & Askin, 1999; Doucette, 1989; Gregory, 1992; Morewood-Northrop, 1994; Pinelli, 1997) that integrated curative, preventive and health promotion activities, as well as a community development approach to health, wherein nurses worked with the community to facilitate and support community capacity to address the social determinants of health (Orchard, Smillie, & Meagher-Stewart, 2000).

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In my previous research with experienced outpost nurses (Tarlier et al., 2003), participants suggested that the primary care competencies that supported treatment-oriented services were fundamental to nurses' practice in the Nursing Station setting. Participants' priority when they first started Nursing Station work was to gain proficiency and confidence in these primary care competencies, thus their initial focus had been on treatment services. The participants in my previous study described how through experience and gaining familiarity with the community context and the community health aspects of the nursing role, their understanding of the role had evolved and their focus had shifted in what I theorized was a shift from a primary care (i.e., treatment) orientation to a PHC orientation. The experienced outpost nurses who participated in my previous study evinced a PHC orientation by articulating an understanding of "the bigger picture" of health care in the community, needing to get to the "root of the problems", and appreciating that "band aid solutions don't work" (Tarlier et al., p. 182). Through their experience these nurses had come to perceive that while treatment services were necessary, it was only through focusing on health promotion, preventive services, working at the community level and developing relationships

that the curative approach is associated primarily with physician practice, whereas this research suggested that other health care providers (i.e., nurses) also engaged in a singularly curative approach.

within the community that nurses were able to "make a difference" and influence health outcomes (p. 183).

In contrast to the findings of my previous research, most nurses who participated in the present study articulated a focus on treatment or curative services, as presented in Chapter Seven in the discussion related to role disorientation. Nurses' discourse focused on treatment and there was a notable lack of discourse related to *the bigger picture* of health in the community, suggesting that these participants had not made the shift to a PHC orientation. One of the few nurse participants who did articulate what I characterized as an evolving PHC orientation to her work described the treatment focus of Nursing Station work and the effects on continuity of patient care in terms of follow-up and recidivism:

I have a big problem in the clinic area with the idea of the treatment and the lack of follow-up and the recidivism of the same people that were coming back and coming back for their, well, "Can you give me a pill for that" or "Can you give me this." It always comes back to the band aid effect, where you're treating the present problem but not going any further than that, not really identifying what keeps bringing them back, it might not necessarily be the sore throat or the ear ache.

This participant was beginning to look beyond the presenting problem to consider what other issues in patients' lives might be influencing health and the use of health services. That is, this nurse was beginning to think in terms of the "upstream approach" to care that is key to a PHC approach. However, her observation also suggested that the upstream approach was not typical of health care provision in the Nursing Station in the study site.

Multiple circumstances enabled and perpetuated the pre-eminence of the curative model of care, in part by interfering with nurses' capacity and readiness to evolve in the Nursing Station role and make the shift to a PHC orientation, and in part by sustaining the structure and infrastructure of health service delivery that perpetuated the curative care model despite FNIHB's advocacy of PHC. These circumstances were presented in Chapters Five and Seven and included the demands of Nursing Station work, nurses' preparation for the Nursing Station role, the process of othering, normalization of risk and nurses' role disorientation. These findings were discussed in terms of their influence on nurses' work and continuity of care and health outcomes. The same findings re-emerged as also having a broader synergistic effect that contributed to the dichotomy between primary care and PHC.³⁴ A nurse participant described this division within community health services during an interview:

If you're working as a team, you should act like a team, whereas it's very divided. The lack of appreciation for what each other is responsible for - it should be a joint effort on both sides. We're community health nurses, whether you're public health or community health, you're here for one reason and that's to promote and to prevent and treat people. You can't do a joint effort if people are so divided on different things, like if somebody comes in to the clinic side [Nursing Station] and sees that a baby hadn't had their needles, well why not just give them their needles when they're here instead of having to haul them back a Monday later so that they can catch up? I think there should be more team work with regards to that and that's been brought up a few times, so I don't know, its really tough to deal with when you have such dynamic personalities in the Nursing Station. You know, there's always somebody pointing blame.

Nurses' lack of preparation for either the primary care or PHC role and nurses' being "too busy" were important issues that kept nurses' gaze fixed on the immediacy of providing primary care. Just coping with the day-to-day routine of providing primary care challenged nurses. Isolation from the community, afforded by the protective bubble of the Nursing Station, the process of othering and work routines that prevented nurses from getting out into the community, (e.g., to make home visits to patients), contributed to a work environment that limited nurses' exposure to the community and therefore limited opportunities for learning about and building relationships with the community. Getting to know the community and building relationships both with and within the community were key to

³⁴ An additional contributing factor identified by Young (2003) may be the relative importance of curative services compared to preventive and health promotion services, in funding aboriginal health care.

supporting and consolidating an understanding of PHC at the practice level (Tarlier et al., 2003). The short-term nature of community assignments and the high rate of turnover among nurses further exacerbated the disconnection that typified nurses' relationships at the community level. Role disorientation reflected nurses' failure to perceive their role as including responsibilities related to working at the broader community level implied by PHC. Structural issues such as lack of support and guidance from management, conflict within the health care team, and failure to clarify nursing roles and responsibilities, particularly during times of transition (e.g., the transfer of public health services to the Band), also reinforced the focus on a curative approach.

One nurse participant with relatively more experience in the Nursing Station role and experience in communities other than the study site summed up the interrelationships between the multiple issues that perpetuated the dichotomy between primary care and PHC. She also linked this to a perceived lack of change in patterns of health service utilization that were characterized by dependency on a curative system of care:

There's lack of cohesiveness within the team, lack of knowledge and support within management, lack of field follow-up - so management hasn't got a clue of what's going on in the field. Community demand has increased, nursing workload has increased and no one is doing the promotion and prevention programs, so it's still band-aid, band-aid, band-aid. How can we get out of band-aid mode when no one is doing promotion and prevention? Like, who's doing the postnatal visits? At what point does someone sit up and take notice? There's just been so much focus on treatment, treatment, treatment, treatment that the proactive programs take a second seat, and we're not doing anyone any favours. We're really doing a disservice here. We're not doing any community development, we're not doing any [health] promotion, we're not doing any prevention, we're still letting people fall onto nursing. There's been years and years of dependence and I don't see that changing.

A dichotomized approach to PHC was contrary to the integrated, comprehensive and holistic model of care that is the foundation of PHC (WHO, 1978) and represented the essence of fragmentation of health services in the study site. Other scholars have previously
noted that a focus on curative services, inadequate support for health promotion and prevention activities, and lack of service integration acted as "barriers to an effective, sustained Aboriginal health strategy" (O'Neil et al., 1999, p. 147). By situating the dynamic of health services fragmentation within the conceptual models that underpinned this study: the PHC model, the continuity of care model and the structure-process-outcome model, the present research explicated the interrelationships between these influences. The effect of dissonance was to perpetuate a curative model of care that was inconsistent with effecting change in the way that health services were offered, to better support a broader PHC model.

Summary

Dissonance was the fourth theme that emerged from the research findings in this study. Dissonance was examined from two perspectives. The first was the discrepancy that existed between participants' perceptions of health and health services in the study site and the reality that was reflected by the health outcomes data and findings related to continuity of care. The second was the dichotomy that was created between the rhetoric of PHC as the model of care espoused by FNIHB and the reality that health services focused on the delivery of curative care at the expense of a broader PHC approach. From both perspectives, dissonance between perception and reality supported the status quo by enabling health care providers to avoid thinking critically about the real issues that influenced health and health status in the study site. Thus dissonance sustained a model of health care that was inconsistent with improving continuity of patient care and health outcomes at the community level.

Thematic Summarization of the Research Findings

In considering the provision of nursing care in the study site, four major, over-arching themes emerged from the analysis and interpretation of the data: (a) influenced by a broader

context and structure of inequity and marginalization, nurses' work occurred at the margins of mainstream nursing practice, (b) health outcomes and continuity of patient care were characterized by fragmentation and discontinuity, (c) nurses' encounters with patients were often characterized by relational disengagement, and (d) dissonance existed between health professionals' perceptions of health care and the reality of demonstrated health outcomes. These four themes, which relate loosely to the context, structure, process and outcomes of health services in the study site, offered a framework within which to examine study findings related to the three dimensions of continuity of care (Reid et al., 2002) as well as the philosophical tenets of primary health care. Each of the four over-arching themes became evident through the process of coding and recoding the data to explore the similarities, contrasts, and interrelationships that existed between the sub-themes. The interpretation presented here was guided by the conceptual underpinnings of this research as described in Chapter Two. The over-arching themes were chosen because they represented in a conceptual sense the essence of what was "going on" in the data.

The context of inequity and marginalization encompassed the broader community context as well as the context specific to the organization and structure of health services in the community. As members of a remote First Nations community, local residents did not have equal access to the same resources, supports and lifestyles that members of mainstream, urban or suburban Canadian communities take for granted. Similarly, the nurses who worked in the study site did not have equitable access to the resources, supports and lifestyles taken for granted by nurses providing health services in mainstream health settings. Thus the contextual background to this research was characterized by marginalization and inequity at both the community level and within the organization and structure of health service delivery. Although dismaying, this finding is consistent with the literature related to the

historical and socio-political context of aboriginal health reviewed in Chapter Three. Like a house built on a fault line, inequity and marginalization are the cracks in the foundation upon which health services and by extrapolation, continuity of care, are constructed.

Fragmentation of services and discontinuity of patient care were associated with structural and organizational issues of health service delivery. These issues were key to interpreting data that related to specific aspects of health services that facilitated or hindered continuity of care and mediated the ability of nurses to influence health outcomes and continuity of care. Overall, the data suggest that fragmentation characterized the health services that were delivered within the Nursing Station as well as between the Nursing Station and adjunct health services available in the community and in larger referral centres outside the community (e.g., in Winnipeg). The fragmentation that characterized relationships among health care professionals at both individual and institutional levels appeared as gaps in services, exposing the potential for discontinuity of care. Fragmentation of health services was evident through analysis of health outcomes, based on the two selected health indicator conditions of prenatal care and infant care through the first year.

The process of relational disengagement that characterized nurses' encounters with patients was related to issues that were pertinent to the process of nursing work and providing patient care. I interpreted relational engagement as the linchpin that held together the process of providing care with informational and management continuity of care. Without relational engagement the process of care was characterized by a sense of disengagement and discontinuity.

In contrast to the findings, nurses as well as other health care professionals, paraprofessional staff and sometimes patients, perceived that patients in the study site received health care and experienced health outcomes that were equitable to the health care and health

outcomes experienced by Canadians in mainstream settings. Dissonance, the fourth theme, represented the discord that existed between nurses' perceptions of health and health care in the study site and the reality that was suggested by the data. Dissonance also existed between the PHC nursing role that nurses were formally expected to enact in practice and nurses' preparation for and valuing of that role. Thus, dissonance reflected a dichotomy between PHC as it was espoused within the larger health services organization, and primary care, or "treatment" services, as these were provided at the local level. Dichotomizing health services fostered fragmentation. Thus, dissonance in a thematic sense was a key aspect of the dynamic that led to patients' slipping through the gaps of fragmented health services.

CHAPTER NINE

DISCUSSION, RECOMMENDATIONS AND REFLECTIONS

Introduction

Two broad assumptions underpinned this research and influenced the interpretation of the findings. The first assumption was that nurses might influence continuity of patient care and health outcomes. The second assumption was that nurse-patient encounters do not occur in a vacuum, but are situated within a broader context that influences both nurses and patients. Moreover, the system of health service delivery to aboriginal Canadians is situated within and has been structured by the broader historical and socio-political context of aboriginal health. Interactions and relationships between nurses and patients are shaped by and reflect the influences of these multiple layers of context and structure. While the findings of this research suggested specific aspects contributed to nurses' ability to influence continuity of care and health outcomes, the underpinning assumptions of the study act as a reminder that no single circumstance may be identified as "causing" the findings related to continuity and health outcomes. As Donbedian (1980) suggested, the relationships between the structure and processes of health care and health outcomes do not imply singular "cause and effect" relationships, but a web of multi-causal interrelationships that are shaped by the complex inter-workings of multiple influences on health and health care.

Study findings suggested that continuity of patient care was compromised on each of the three dimensions identified by Reid et al. (2002): relational, informational and management continuity. Four over-arching interpretive themes emerged from the data. These offered a framework for organizing and examining the findings: (a) influenced by a broader context and structure of inequity and marginalization, nurses' work occurred at the margins of mainstream nursing practice, (b) health outcomes and continuity of patient care were

characterized by fragmentation and discontinuity, (c) nurses' encounters with patients were characterized by relational disengagement, and (d) dissonance existed between health professionals' perceptions of health care and the reality of demonstrated health outcomes, and between an espoused PHC model of care and the curative model that characterized health services in the study site. Health services and the provision of health care were characterized by fragmentation and discontinuity.

In this chapter I first offer some reflections on the study methods, in particular, on the mixed methods approach used in this ethnographic study, and on the challenges of conducting research in a remote setting. I then consider the implications of the findings of this study from the micro, meso and macro perspectives, using these varying levels as a framework to support and integrate discussion of the implications for health in the study site. At the micro level perspective I examine the implications of the clinical health outcomes findings of this study, and nurses' role in the provision of care at the individual level. At the meso level perspective I explore the possibilities related to ameliorating key systemic issues that influenced nurses' practice and consider the potential for shifting practice to improve nurses' effectiveness. The macro level discussion integrates the implications of the micro and meso perspectives for health at the broader social level and I examine the influence of broader health policy on health and the provision of health services. I conclude this chapter with specific recommendations and a final comment on the significance of this research.

Reflections on Study Methods

In this ethnographic study a mixed methods design was utilized to integrate data from a variety of sources. Data sources included patient chart review, observations, interviews and the collection of artefacts. Among the challenges of planning and carrying out this study was the initial difficulty of conceptualizing the integration of data from different sources. Early in

the design stage, many of the issues related to integrating the data were still unclear. The quantitative and qualitative arms of the study, including data collection, analysis and writing up, took place concurrently, rather than one arm preceding the other. This eventually facilitated integration of the data at all phases of the project; however, the challenge lay in anticipating the process of integration before knowing what the data from each of the two arms might look like. For example, there was the risk that the findings from chart review data and the findings from interview and observational data might be inconsistent or even contradictory. The challenge of integrating the data was revisited during the latter stages of integrated analysis of the findings that remained transparent and true to the demands of rigor of each method. It also proved challenging to shift back and forth between thinking in quantitative terms versus thinking in qualitative terms. Once immersed in one aspect of analysis, an intellectual "grinding of gears" was at times required to move back to the other

In the end, the benefits of using a mixed methods strategy outweighed the challenges. The integrated interpretation of the findings offered a holistic and contextualized view of health, health services and nurses' practice in the study site. Potentially a study that might have suffered from too broad a scope, this study benefited from strong conceptual underpinnings: primary health care, the three dimensions of continuity of patient care described by Reid et al. (2002), and the structure-process-outcomes framework of the adapted Nursing Role Effectiveness Model (Irvine et al., 1998). These conceptual underpinnings directed the focus on the phenomena of interest, while enabling the interpretive lens to flex between the micro, meso and macro issues that influenced health services and health. As one method informed the other in this study, so too did shifts in focus

inform one another. Exploring issues at multiple levels and from different perspectives suggested there might be multiple points of intervention at which to begin addressing the issues that influenced health in the study site.

The challenges of conducting research in a remote setting included the logistical challenges of physical access and the high cost of air travel in and out of the study site. Distance and cost also imposed the need to remain in the study site community for several weeks at a time to conduct data collection. The offsetting advantage was the opportunity to observe how participants lived and socialized outside of the work setting. Even though the study site was similar to other settings that I was familiar with through clinical work, viewing the context and the dynamics among nurses as an observer offered new perspectives and insights. As well, I noted that by positioning myself as a researcher, I perceived that my relationships with the paraprofessional staff and with patients were subtly different than I had experienced as a nurse, in that these participants seemingly went out of their way and were proactive in offering me information about the community and the study site. In several instances this was information that nurse participants had not been made aware of. I was challenged to reflect on and reconsider my preconceptions and to question my own potential biases about Nursing Station work in the study site. The reflective journal that I kept throughout data collection became the repository of these thoughts, and subsequently became an important adjunct to the data.

It is important to note a limitation of this research, in that this study represented one study site: a single case. Some of the specific findings of this study are unique to this particular setting, and to the unique moment in time during which data collection took place. This study represented a "snapshot in time" of an environment created in part by the individuals and the particular dynamics of that moment in time. However, the literature (e.g.,

Gregory, 1992; Martin & Gregory, 1996; Martin, 1997; Minore et al., 2002; Vukic & Keddy, 2002) and my previous research with outpost nurses suggest that the findings of this study may reflect the realities of nursing practice in similar settings across northern and remote Canada. Anecdotal evidence supplied by colleagues engaged in Nursing Station work, and my broad clinical experience in similar communities also suggest that the issues that were found to influence nurses' practice and health care in the study site may also be relevant in similar settings. The broad dynamics that underlie aboriginal health are common to aboriginal health services in most if not all remote communities: the effects of the sociopolitical history of aboriginal health that has created the current context of health and health services, the roots of aboriginal health services nationally within the colonial enclaves of federal bureaucracies such as FNIHB and INAC, the global nursing shortage that has increased the challenge of recruiting and retaining nurses in all settings, the lack of educational opportunities for nurses working in the Nursing Station role, and the challenges of outpost nursing. These issues are not unique to the study site. In the discussions that follow I have endeavoured to illustrate the relevance of the findings of this study to similar sites.

Clinical Implications of Maternal-Infant Health Outcomes

The clinical health outcomes findings described in Chapter Six and their implications were disturbing on three levels. Not only did these findings reflect sub-optimal clinical health outcomes, they reflected sub-optimal outcomes in maternal and infant health specifically: two areas that have long been recognized as cornerstones of healthy communities and the primary health care model. The WHO identified maternal-child health care "including family planning [and] immunization" among the "essential elements" of primary health care (1978, p. 32). The possibility that the most basic of maternal-child health outcomes remain in

jeopardy in a developed nation such as Canada raises serious concerns; as a privileged nation, "Canada has led the world in understanding health promotion and population health" (CIHI, 2002) - and we expect we should be doing better. As well, these outcomes in Canada's aboriginal population are at odds with a national philosophy of health care that espouses fundamental values of equity and access for all Canadians (Canada Health Act, 1984). Moreover, and on more pragmatic grounds, poor maternal-infant health outcomes are associated with the conditions and diseases of later life that increasingly challenge aboriginal health, such as diabetes.

Extremes of Age and Parity

Almost 31% of the pregnancies in this sample were to adolescent women. Risks associated with adolescent pregnancies include higher rates of prematurity, postpartum hemorrhage, low birth weight infants, operative vaginal delivery and neonatal morbidity and mortality (American Academy of Pediatrics [AAP] Committee on Pediatrics, 1999; Conde-Agudelo, Belizán, and Lammers, 2005; WHO, 1998). In addition to these medical risks, adolescent pregnancy also holds personal and social implications for the mother and infant, as well as implications for the broader society. Adolescent mothers often interrupt or discontinue their education, thereby limiting future employment options and perpetuating cycles of illiteracy and poverty (AAP; Ozlap, Tanir, Senar, Yazan, & Keskin, 2003; WHO). Children of adolescent mothers "have an increased risk of developmental delay, academic difficulties, behavioural disorders, substance abuse, and becoming adolescent parents themselves" (AAP, p. 518). There is an increased chance that adolescent mothers will experience subsequent closely spaced pregnancies (Ozlap et al.), which further compromise the health of both women and infants (The Alan Guttmacher Institute, 2002). For example,

Fuentes-Afflick and Hessol (2000) found that women with an interpregnancy interval of less than 18 months were more likely to give birth to very or moderately premature infants.

Close to 28% of all pregnancies in the sample in this study were primigravid. Primigravid pregnancies are associated with increased maternal and fetal risks and poorer health outcomes (Bai, Wong, Bauman, & Mohsin, 2002; Ozlap et al., 2003). Risks associated with primigravid pregnancies include higher rates of maternal complications such as pregnancy-induced hypertension, premature rupture of membranes, postpartum hemorrhage and perineal tearing during delivery, as well as higher rates of neonatal morbidity (Bai et al.). Research conducted by Vintzileos, Ananth, Smulian, Scorza, and Knuppel (2002) indicated that at least some of these complications might be moderated by prenatal care, thus suggesting that women experiencing pregnancy for the first time might benefit from prenatal care.

The average number of previous live births to women in this sample (i.e., the fertility rate) was 1.8. However, over 7% of pregnancies in this sample were to women who were grand multiparas (i.e., five or more previous live births). Grand multiparity is associated with greater maternal and fetal risk and poorer health outcomes, in particular, higher risks of antepartum and postpartum hemorrhage and macrosomia (Babinszki et al., 1999) as well as increased neonatal morbidity and perinatal mortality (Bai et al., 2002).

Although some recent research has attempted to factor out the confounding effects of variables such as age and socio-economic status on the outcomes of grand multiparous pregnancy and suggests that grand multiparity may not in itself constitute an increased risk of childbearing (Babinszki et al., 1999; Humphrey, 2003), certain risks (e.g., postpartum hemorrhage, macrosomia) were still found to be higher in grand multiparous sample populations. Large retrospective cross-sectional studies continue to substantiate that grand

multiparity is associated with higher risk (Bai et al., 2002; Conde-Agudelo et al., 2005). In fact, Bai et al., using a study sample of over 500,000 women, recommended revising the definition of grand multiparity to include women with four or more previous births, based on their results of risks associated with increasing parity stratified per pregnancy.

Birth Weight and Gestational Age

Over 75% of the infant birth weights in this sample were within the desirable range of 2500 to 3999 grams associated with better perinatal health outcomes (Health Canada, 2003). However, almost 25%, or one quarter of the birth weights in this sample, were too low (6%) or too high (19%). These statistics are comparable to 2000 FNIHB data that suggested that 4.7% of First Nations on-reserve births in Canada were low birth weight (FNIHB 2005) and 20.4% (both on and off reserves) were high birth weight (Health Canada, 2003). Both low and high birth weights are predictors of Type 2 diabetes in later life (Health Canada, 2003). Given the increasingly high rates of Type 2 diabetes in the aboriginal population in Canada (Young et al., 2000), this finding carries significant implications for long-term health.

Similarly, while more than 75% of the women in this sample delivered after 37 and before 41 completed weeks' gestation, premature births (i.e., before 37 completed weeks' gestation) accounted for over one fifth (21%) of births in the sample. This figure is grossly higher than the pre-term birth rate of 7.1 per 100 live births in Canada overall in 1997 (Health Canada, 2000a). Births past 41 completed weeks' gestation accounted for only 3% of births in the sample³⁵. This figure is higher than the Canadian national rate of 1.8% (Health Canada).

³⁵ As mentioned previously, it is important to note that planned interventions such as induction of labour or caesarean section were routinely implemented past 42 weeks' gestation, and because sample selection was dependent on recorded live births, any premature births that resulted in fetal death would not have been included in the chart review.

Birth weight and gestational age at birth are important indicators of perinatal health. Low birth weight includes both premature infants and small for gestational age (SGA) infants. Premature birth is a risk factor for low-birth weight infants and is associated with an increased risk of complications during the neonatal period due to immature respiratory, renal and gastrointestinal function, and also with an increased susceptibility to infection (Health Canada, 2000a; Thilo & Rosenberg, 2005). Small for gestational age infants are also at increased risk of complications in the neonatal period, including fetal distress, hypoglycemia (Thilo & Rosenberg) and increased susceptibility to illness (Health Canada, 2003). Premature and SGA infants are at increased risk of failure to thrive (Krugman & Dubowitz, 2003) and anemia (Willows et al., 2000). Potential longer-term sequelae of low birth weight include impaired learning ability that may extend into school age (Weindrich, Jennen-Steinmetz, Laucht, & Schmidt, 2003), as well as the development of hypertension (Eriksson, Forsen, Tuomilehto, Osmond, & Barker, 2000) and Type 2 diabetes in adulthood (Cianfarana, Germani, & Branca, 1999).

Four out of the 65 birth weights in the sample (6%) were less than 2500 grams. Each of these births was associated with both premature delivery and with compromised prenatal maternal health. For example, three women delivered at 34-36 weeks' gestation due to complications of pregnancy-induced hypertension (one related to renal failure and one in conjunction with gestational diabetes). The fourth woman went into premature labour and delivered at 34 weeks' gestation while being treated for a urinary tract infection. Interestingly, although four multiple gestation pregnancies were included in this sample, only one of the low birth weights was associated with a multiple gestation pregnancy.

Of the two extremes of birth weight, high birth weight (i.e., 4000 grams and heavier) was the more common finding in this study. Nineteen percent of the infants in this sample

were high birthweight, compared to 22% in the Canadian First Nations population overall (Health Canada, 2003). These figures compared to a rate of only 12% in the Canadian population overall (Health Canada). High birth weights are associated with maternal diabetes, either gestational or pre-existing the pregnancy (Health Canada), as well as maternal pre-pregnancy weight, weight gain during pregnancy, age and parity (Jolly, Sebire, Harris, Regan, & Robinson, 2003). High birth weights are also associated with an increased incidence of perinatal intervention, including induction, operative vaginal delivery and c-section (Jolly et al.; Stotland, Hopkins, & Caughey, 2004; Surkan, Hsieh, Johansson, Dickman, & Cnattingius, 2004), with implications for maternal health postpartum. Interventions are associated with further perinatal complications such as anemia (resulting from vaginal or cervical tears or operative blood loss) and postpartum infections (i.e., of operative incisions). Macrosomia is a clinical risk factor for postpartum hemorrhage (Jolly et al.; Society of Obstetricians and Gynecologists of Canada [SOGC], 2000).

While only two of the births in this sample occurred past 42 weeks' gestation, this finding is important because of the association of later gestational age with larger infant birth weight and macrosomia (Kramer et al., 2002), For example, each of the two women in this sample who delivered at 42 weeks' gestation delivered large infants by C-section. Infant birth weights were just over 3800 and 4900 grams. Both women were anemic postpartum, and one developed an incisional infection. Thus, advanced gestational age in this study was associated with delivery of an infant of average weight and also with delivery of a macrosomic infant, but both were associated with maternal postpartum complications. Wenman et al. (2004)³⁶ found that while "Aboriginal ethnicity itself was not independently

³⁶ It is noted that the study by Wenman et al. (2004) has come under critique on the basis of methodological issues such as the process used for determining ethnicity of participants and also for being underpowered (see

associated with low birth weight, prematurity or macrosomia" (p. 578), the aboriginal women in their study, who experienced higher rates of low birth weight, premature birth and macrosomia than non-aboriginal study participants, also experienced higher rates of healthrelated factors such as smoking, poor nutritional status, low socio-economic status, previous premature birth and a history of bacterial vaginosis during pregnancy. Other factors implicated in low birth weight in aboriginal populations include inadequate prenatal care (Baldwin et al., 2002) and health conditions or illnesses such as hypertension (Tranquilli & Giannubilo, 2004). The occurrence of low or high birth weight and premature birth among the sample of First Nations women in the present study may be related to similar factors.

Complications of Pregnancy, Labour and Delivery

Of the women identified as experiencing a complication of labour and delivery in this study (see Table 5), over half (52%) were adolescent and /or primiparous, or grand multips. Interestingly, using the revised definition of grand multiparity (i.e., 4 or more previous births) suggested by Bai et al. (2002) would increase this figure to almost 62%. Thus, the literature suggests that the findings of this study were consistent with previous research that supported an association between adolescence and extremes of parity and complications of labour and delivery.

Twenty-nine out of 65, or 44.6% of the women in this sample experienced one or more complications of pregnancy, labour and delivery. Complications (see Table 5) included persistent or profound anemia (antenatally or postpartum or both), post-partum hemorrhage, hypertension (either pre-existing or pregnancy-induced), diabetes (either pre-existing or gestational), premature rupture of membranes, premature delivery, induction of labour, and

Smylie, 2005). However, it is included here because the authors did point out that sub-optimal perinatal outcomes were associated with factors that reflected low socio-economic status and not aboriginal ethnicity per se.

c-section. Two women experienced serious sequelae of delivery with ongoing functional impairment.

Most women who experienced a perinatal complication experienced more than one complication, largely due to the inter-relationships between key risk factors and complications. For example, macrosomia, a complication commonly related to diabetes in pregnancy, is a risk factor for postpartum hemorrhage (SOGC, 2000), as are elevated blood pressure and high parity (SOGC). Urinary tract infections are a risk factor for pre-term labour (Baskett, 1991). Qualitative data extrapolated from the contextual notes indicates that the majority of the women in this sample experienced multiple risk factors in pregnancy. Forty-eight out of 65 women had documented evidence of more than one of the following: anemia, infection, parity, age, mental health issues (e.g., substance or family abuse), social issues (e.g., poverty, illiteracy) or a pre-existing medical condition.

Perinatal complications not only potentially place both mother and infant at an increased risk of perinatal morbidity and mortality, they may affect postpartum recovery and interfere with a safe transition to the postpartum period. For example, a postpartum hemorrhage that causes the hemoglobin value to drop to 80 g/L may leave a new mother too fatigued to breastfeed. Prolonged hospitalization of a premature or SGA infant may also interfere with establishing breastfeeding, and may delay return to the community. Both mother and infant may potentially place a higher demand on local health services by requiring more support and closer monitoring and follow-up in the postpartum period, for example, for hypertension, diabetes, anemia, or wound care, thereby also increasing nursing workload. Perinatal complications effectively increase the number of women and infants atrisk of further complications in the perinatal period.

Complications may also lead to longer-term sequelae that have implications for health at the population level. Low maternal iron stores in pregnancy are associated with irondeficiency anemia in breast fed infants (Willows et al., 2005). As previously discussed, premature and SGA infants are at risk of failure to thrive (Krugman & Dubowitz, 2003) and anemia (Willows et al., 2000). Women who develop diabetes in pregnancy are at higher risk of developing Type 2 diabetes in later life (CDA, 2003). Longer-term sequelae such as these are significant because they contribute to and further increase the burden of disease in the community. The burden of pre-existing illness with implications for the incidence of perinatal complications in this sample is significant and serves to illustrate how patterns of poor health may be perpetuated through generations.

Postpartum Visits

While few studies to date have been carried out to substantiate the value of a maternal postpartum follow-up visit (Lu & Prentice, 2002), such visits continue to be recommended in national clinical guidelines (e.g., Family-Centred Maternity and Newborn Care: National Guidelines, Health Canada, 2000b).

The data from chart review bore out these speculations, suggesting that almost one quarter of the women in this sample (24.6%) experienced a short interpregnancy interval, defined in this study as a subsequent pregnancy within 12 months of delivery. Moreover, several women in this study were noted to have experienced more than one short interpregnancy interval. None of the women identified as experiencing a short interpregnancy interval had attended a routine postpartum visit, while none of the 10 women who did attend a postpartum visit experienced an early subsequent pregnancy. Thus these data suggested that attending a routine postpartum visit might be a key aspect related to continuity of care through women's childbearing years.

Anemia in Infants

Several of the infants in this sample who had not received hemoglobin screening by age 12 months were noted (in data from the contextual notes) to have one or more risk factors for low hemoglobin. These included maternal anemia during pregnancy (Willows et al., 2005), low birth weight (Feightner, 1994), prematurity and frequent infections (Canadian Paediatric Society [CPS], 1991³⁷), and being primarily breastfed without supplemental iron, or being fed cow's milk or "Carnation" milk, as opposed to iron-enriched infant formula (Feightner; Willows et al.). Moreover, Feightner identifies both low socio-economic status and aboriginal ethnicity as major risk factors for anemia in infancy. Thus there is reason to believe that routine hemoglobin screening in the sample population is indicated. The finding that 36% of infants in the sample had not been screened is concerning.

Equally concerning is the finding that 38% of the infants who had been screened in this sample were found to have a hemoglobin less than 110 g/L. While acknowledging the possibility that not all hemoglobin values below this cut-off point were in fact due to irondeficiency anemia, the sequelae of iron-deficiency anemia are potentially significant and current practice guidelines demand not only aggressive treatment and follow-up of identified cases of low hemoglobin, but also that effective primary preventive strategies be in place (CPS, 1991; Feightner, 1994). Sequelae of iron-deficiency anemia in infants include poor weight gain, irritability, decreased attention span, and decreased physical activity, as well as cognitive and psychomotor developmental impairments (CPS; Feightner; Lozoff, Jimenez, & Wolf, 1991) that may persist into school-age (Lozoff, Jimenez, Hagen, Mollen, & Wolf, 2000). The evidence base supporting a causal relationship between iron-deficiency anemia in infants and cognitive delay has been challenged on the basis of confounding factors such as

³⁷ This CPS Position Statement was under revision as of January 2006.

poverty and low socio-economic status (Grantham-McGregor & Ani, 2001); however, the authors of this large review of studies concluded "it is clear that iron deficiency identifies children at concurrent and future risk of poor development" (p. 665S). At this time, it remains generally accepted that the long-term consequences of iron-deficiency anemia may have profound implications for the physical, mental and emotional health of infants and children into school age and even into adulthood.

Immunization

Immunization coverage is a key component of preventive infant health care and infectious disease management. Immunization is of particular importance in aboriginal populations, where the rates of infectious disease, including vaccine-preventable infectious disease, are substantially higher than in non-aboriginal Canadian populations. In 1999, "Rates of mumps, pertussis and rubella were three times higher than the overall Canadian rate" (Health Canada, 2003, p. 35). National immunization coverage goals range from 95% for pertussis to 97% for diphtheria, tetanus, polio, invasive Haemophilus influenza Type b (*H. flu*), measles, mumps and rubella (Health Canada). National coverage goals are higher than the estimated herd immunity thresholds, which range between 80-94% depending on the specific disease (Health Canada). Coverage rates at age 12 months for First Nations infants in 1999 ranged between 70-75% (excluding measles, mumps and rubella). While immunization rates did not meet the estimated threshold to achieve herd immunity in First Nations populations in 1999, rates had increased substantially over the previous two decades (Health Canada). However, findings indicated that infant immunization rates in this study sample were significantly lower than the 1999 rates in First Nations overall.

In this study sample 24 out of 63 infants (38%) had either up-to-date immunization status at age 12 months, or if aged less than 12 months at the time of chart review, then for

infant age at the time of chart review. Therefore 39 of 63 infants (62%) were not up-to-date with routine recommended immunizations for their age.

Immunization rates were further broken down into rates for each age of immunization according to the routine immunization schedule in effect in First Nations communities in Manitoba during the study period. Age-specific rates were displayed in Table 6. While infant immunization rates were only 36.5% at age 2 months, this figure was high in relation to subsequent rates of 11.7% at 4 months and 5.1% at 6 months. On a positive note, there was a tendency for infants to "catch up" their immunizations by age 12 months, when the rate was found to be 33.3%. However, this rate was almost three times lower than the national immunization coverage goals.

The consequences of low immunization rates are obvious: infants are susceptible to the vaccine-preventable diseases of infancy and childhood. These are the diseases that prior to the availability of effective vaccines were among the most significant causes of infant and child mortality and morbidity. For example, invasive *H. flu* type b is the major causative organism of bacterial meningitis and epiglottitis. Prior to the availability of an effective vaccine for invasive *H. flu* type b in 1998, there were approximately 2,000 cases of invasive *H. flu* type b annually in Canada, with a case-fatality rate of 5% and neurological sequelae or deafness in up to 20% of cases (National Advisory Committee on Immunization, 2002). Eighty-five percent of invasive *H. flu* type b infection occurs in children younger than five years of age, with the peak age six to 12 months of age (Plotkin & Orenstein, 2004). Despite the vaccine being available and recommended as a routine infant immunization across Canada, there were five cases of invasive *H. flu* type b disease in aboriginal children in northern communities in 2001, including one death (Health Canada, 2003). It was therefore

disturbing to find that 95% of infants in the study sample were not fully immunized against invasive *H. flu* type b between six and 12 months of age.

Infant Weight Gain in the First 12 Months

Thirty-seven of 63 infants (59%) demonstrated satisfactory weight gain at age 12 months or if aged less than 12 months at the time of the chart review, at the age of the most recently documented weight. Therefore 41% of infants in the sample experienced less than satisfactory weight gain. Data from analysis of the contextual notes suggested that poor weight gain and failure to thrive were prevalent in the sample. Failure to thrive is generally defined as a plotted growth pattern that falls more than two major percentile lines on a standard growth chart, or when weight for age drops below the fifth percentile (Krugman & Dubowitz, 2003).

Risk factors for low weight gain and failure to thrive include premature birth, SGA, young maternal age and quality of home environment (Kelleher et al., 1993). Given the findings of this study related to the risk factors discussed above, the prevalence of poor weight gain in the sample was perhaps predictable. Poor weight gain and failure to thrive are associated with adverse intellectual outcomes (Corbett & Drewett, 2004), behavioural problems (Krugman & Dubowitz, 2003), and smaller growth parameters and poorer health status (Kelleher et al.), thus may hold significant long-term implications for mental and emotional development and health.

Infants with excessive weight gain were not captured in the data in this study because a high-end weight cut-off point was not assigned in the Newborn Data Collection Protocol (see Appendix E). Interest in infant weight gain has traditionally focused on whether infants gained adequate weight rather than on excessive weight gain. However, the contextual notes support speculation that several infants in this sample may have experienced excessive

weight gain. In retrospect, the failure to assign a high-end weight cut-off point was an oversight in the data collection protocol of this study. Data to support the speculation of excessive weight gain would be valuable. There is a growing body of evidence to suggest that excessive weight and an increased Body Mass Index in aboriginal infants may be a risk factor for the development of obesity and diabetes in later life (CDA, 2003; CPS, 2004). It was noted that infants in this study experienced other risk factors for developing Type 2 diabetes, in particular, aboriginal ethnicity, exposure to gestational diabetes in utero, and a family history of diabetes (CDA). While acknowledging that the data in this study only allow speculation that excessive weight gain may be of concern in the sample population, the implications of excessive weight gain in infants in this population are important and deserve further investigation.

The exponential increase of diabetes and other chronic health conditions in some aboriginal populations (Health Canada, 2003; Romanow, 2002; Shah et al., 2000; Young et al., 2000) compels a close examination of the factors that contribute to these conditions. Recent evidence points to factors during pregnancy and infancy as potentially contributing to conditions that exert a life-long influence on health such as diabetes, obesity and developmental delays. Improving maternal-infant health outcomes is a key strategy to decreasing the risk factors that may lead to chronic health conditions and poor health in later life and may help to break the cycle of patterns of poor health being perpetuated in successive generations.

The Microcosm of Care: Nurse-Patient Encounters and Continuity of Care

Having clarified the assumption that nurse-patient encounters take place within and are influenced by the context and structure of health services, it remains that at its core, the provision of health services occurs at the interface between individual patients and providers.

While nurses may lack control over aspects of their practice that are affected by systemic and contextual issues, as health professionals, nurses are nevertheless obligated and responsible for ensuring their practice is consistent with expected professional standards. The Canadian Nurses Association *Code of Ethics for Registered Nurses* (2002) offers a national practice standard. According to these standards, nurses are responsible and accountable to demonstrate practice that is safe, competent and ethical, that engages others respectfully, that is equitable and promotes health, well-being and social justice. Thus, while acknowledging the influence of broader contextual issues, the essence of the provision of safe, competent nursing care takes place within the microcosm of the individual nurse-patient encounter. In this section I discuss the implications of study findings related to health and health services at this micro level.

Vulnerable Groups and Normalization of Risk

The population of childbearing women and infants in the study site included several sub-groups who were at increased risk of poor health outcomes. These more vulnerable groups included adolescents in pregnancy, women at the extremes of parity (i.e., primiparous and grand multiparous women), with chronic health conditions (e.g., diabetes, hypertension), repeated short inter-pregnancy intervals, and social, mental health and lifestyle risk factors (e.g., poverty, illiteracy, abuse). Because of the continuum of maternal-infant health, the infants of these more vulnerable women were also found to be at high risk for poor health outcomes. Moreover, regardless of their mother's health status, some infants were more vulnerable to poor outcomes secondary to low or high birth weight, prematurity, or health conditions evident at birth or in the first year of life (e.g., prolonged hospitalization at birth, congenital conditions, failure to thrive).

Vulnerable individuals in the study site (who by definition of their vulnerability required a high level of continuity of care) and sub-optimal health outcomes offered a window through which to examine the issues that influenced continuity of care and outcomes within nurse-patient encounters; that is, the effects of the process of othering, normalization of risk, and nurses' lack of preparation as primary care and PHC providers. While not devaluing the importance of providing effective primary care to all patients, nurses might reasonably have targeted these more vulnerable individuals to receive a more proactive model of care, yet this type of care was rarely evident in the data.

The normalization of risk in the study site acted as a barrier to nurses' recognizing particular patients and patient groups as being more vulnerable to poor health outcomes and therefore as groups to be targeted for more proactive care. As discussed in the foregoing section, adolescent women benefit from receiving prenatal care that is modified to better meet both the lifestyle and developmental needs of teenagers (e.g., AAP, 1999; Health Canada, 2000b). Aboriginal adolescents benefit by receiving age-relevant prenatal services in an environment in which their own cultural values around childbearing are acknowledged and respected (Montgomery-Anderson, 2003). Similarly, the sequelae of diabetes in pregnancy or anemia in infancy mandate high continuity of care: the early recognition, effective management and follow-up of patients with these risk factors (Dooley & Sugamori, 1996; Hodgins, Dewailly, Chatwood, Bruneau, & Bernier, 1996). Kogan, Alexander, Jack, and Allen (1998) found that infants of women who had received less than adequate prenatal care were less likely to receive adequate routine well child care and to have up-to-date immunization status. These authors suggested targeting this group of women and infants "for interventions designed to promote ongoing infant health care" (p. 29). In a sample of innercity women, Krueger and Scholl (2000) found that inadequate prenatal care was associated

with poverty and women's minority status, as well as an increased risk of premature delivery; they suggested targeting women at risk of inadequate prenatal care to decrease the risk of preterm birth. Yet in an environment where risk was normalized, as it was in the present study site, nurses often failed to recognize and target more vulnerable individuals or groups. The data indicated that these patients experienced fragmented health care and poor continuity of care.

Prompted mainly by aboriginal women's groups, FNIHB has recently acknowledged some of the issues that exist around perinatal and infant health in aboriginal communities. Shifts in maternal-infant health policy support the need to offer both more acceptable models of maternal-infant health services, and better-prepared health providers, such as maternalinfant clinician specialists and midwives. New initiatives include the Aboriginal Midwifery Education Program and a Collaborative Maternity Care Project (i.e., led by SOGC) (Walker, 2005). These initiatives, which support the goal of "returning safe birth closer to communities" are overdue and may represent an important strategy to improve maternalinfant health care and health outcomes. However, these initiatives are very recent and it is predictable that in smaller and more remote communities particularly, maternal-infant health services will continue to be provided primarily by nurses for some time to come.

Barriers to Nurse-Patient Engagement

The process of othering acted as a barrier to nurse-patient engagement and the formation of respectful, responsive relationships between individual patients and nurses. Similarly, in a study of First Nations women's beliefs about prenatal care, Sokoloski (1995) identified discriminatory attitudes on the part of health care providers as a barrier to prenatal care. Aboriginal women were more likely to be satisfied with prenatal care and more likely to attend prenatal visits when health care providers engaged wholly with them during

interactions (Sokoloski). As in Browne's (2003, 2005) study of encounters between nurses and First Nations women, nurses in the present study did not intentionally or even consciously engage in othering practices. In the present study, nurses' lack of insight related to othering practices precluded the formation of engaged, responsive relationships with patients and thereby may have discouraged access to prenatal and well-child services.

In a study of Irish mothers' behaviours related to infant immunization, Harrington, Woodman, and Shannon (2000) identified what they described as "defaulting" behaviour on the part of mothers in their study. Defaulting behaviour referred to mothers whose children were not up-to-date with immunizations but who:

...still intended to complete their schedules at some unspecified future date. They talked in terms of forgetfulness, rather than true apathy. Almost all were of high parity and pointed to the stresses of childcare in a large family. The disadvantages of the clinic as an immunisation location seemed of greater importance to these mothers. The apparent chaos of life in a large family made the prospect of a visit to the clinic even more onerous, especially if it involved bringing other small children. This was particularly so if the family had no transport and if the weather was bad, making defaulting more likely. For these mothers, the tendency for defaulting behaviour to increase with rising parity seemed mostly attributable to an increase in the burden of child care, rather than a true apathy. (pp. 396-397)

Harrington et al. (2000) found that Irish mothers were also more likely to assume defaulting behaviour when they were dissatisfied with interactions with health care providers. These mothers described unsatisfactory interactions with health care providers as authoritarian, lacking humanism and compassion, marked by rough handling of the infant, and failure of the provider to engage with the baby. Mothers expressed a preference to have their infants immunized by a provider with whom they had an established relationship and felt some sense of rapport. Interpersonal relationships between nurses and patients appeared to be an .important influence on relational continuity of care, and relational continuity in turn may have influenced mothers' attendance for routine well childcare and immunizations. Since Harrington et al.'s study involved Irish women receiving care from presumably Irish providers in Dublin, othering practices based on racial or minority group delineations were possibly not part of the dynamic. However, othering practices may conceivably be based on other points of perceived difference between groups of patients and providers, for example, on socio-economic class or religious differences. Harrington et al. did not address possible points of commonalty or difference between providers and patients in their study.

In the present study, defaulting also described the observed attitudes and behaviours characteristic of some First Nations mothers toward their infants' immunization status. Moreover, striking similarities existed between the issues that influenced defaulting behaviour of mothers in the Irish study, such as disengaged provider-patient relationships, lack of relational continuity, parity, the stresses of a large family, lack of child care and lack of transportation.

In their study exploring the beliefs of First Nations mothers about childhood immunization, Tarrant and Gregory (2003) similarly concluded that negative interactions with nurses, time constraints and lack of childcare acted as barriers to infant immunization. Negative interactions with nurses were characterized as interactions wherein the nurse failed to engage with either the mother or the infant, or mothers were "scolded and reprimanded by health professionals over issues related to childcare, treatment of their children's illnesses, and even their frequent visits to the clinic" (p. 68). Thus, as observed in the present study, negative interactions were suggestive of disengaged behaviours on the part of the nurse.

Other barriers to immunization identified by Tarrant and Gregory (2003) that were also findings of the present study were lengthy wait times in the clinic, and the frequency of childhood illnesses that caused both mothers and nurses to delay immunization inappropriately. Minor illnesses do not represent a true contraindication to immunization

(National Advisory Committee on Immunization, 2002) and delaying immunization for minor illness is an important cause of "missed opportunities" for immunizing (Tarrant & Gregory, 2001). Missed opportunities therefore suggested a lack of accurate knowledge or information about immunization on the part of either or both nurses and parents. Eliminating missed opportunities could potentially increase immunization rates by up to 25% (Tarrant & Gregory, 2001). The Tarrant and Gregory study and the Harrington et al. study (2000) offered relevant insights into contextual issues that may have influenced both the quality of provider-patient relationships in the site of the present study, and consequently, immunization rates, as well as having a direct influence on immunization rates by affecting access.

Of note in the Harrington et al. (2000) study was the finding that Irish mothers perceived that the lack of relational continuity could be ameliorated if all providers exhibited what these mothers described as the "right" behaviours, that is, if they engaged with the infant, were gentle and compassionate, and acknowledged the emotional pain mothers experienced secondary to the pain inflicted on their infants. That is, the Irish mothers in this study seemingly looked for specific provider behaviours rather than for a specific provider per se. This finding is pertinent to the present study in that it suggests that site continuity could potentially meet patients' expectations of interpersonal continuity provided that health practitioners delivered services in a manner acceptable to patients. Moreover, it is germane to this discussion because the "right" behaviours described by Irish mothers also describe engaged, responsive provider-patient relationships.

To provide acceptable and effective prenatal and infant care that met the needs and expectations of aboriginal women and their infants, nurses required knowledge and competencies specific not only to providing prenatal and infant care in aboriginal contexts,

but also to engaging in responsive relationships in aboriginal contexts. This included knowledge and competencies related to primary care as well as interpersonal skills that enabled nurses to deliver acceptable and effective care that contributed to patients' perception of relational continuity despite seeing different nurses, sometimes on each visit. Nurses in this study often lacked the knowledge base necessary to allow them to think critically about cultural safety issues, as well as adequate preparation as primary care and community health care providers. Each of these domains of competency has been identified as critical to the preparation of physicians who work in northern and aboriginal communities (Beach & Jong, 1996). When nurses practice in similar PHC roles, these competency domains are equally critical. Interestingly, increased opportunity for continuing education related to cultural issues or community health competencies was not identified as a learning priority by nurses in the Silverman et al. (2001) survey of continuing education needs of nurses working in First Nations communities. However, the findings of the present study suggested that nurses' lack of competencies related to community health and working within aboriginal cultures presented a barrier to appropriate nurse-patient engagement. Lack of adequate preparation influenced all three dimensions of continuity (i.e., relational, management and informational). Ensuring nurses have the competencies required to support safe, competent care is paramount to improving continuity of patient care.

The findings of the present study related to nurses' inadequate preparation were not restricted to this study site but have been noted in other research as well, suggesting that the issue of adequate preparation of nurses for the Nursing Station role is widespread. A large Canada-wide survey on nurses' practice in rural and remote regions recently revealed that while 13.5 % of respondents worked in an outpost or Nursing Station setting, fewer than 3%

of respondents had "outpost certification"³⁸ and fewer than 6% had "Advanced Practice Nursing" preparation³⁹ (Stewart, D'Arcy, Pitblado, Morgan, et al., 2005). The lack of clarity regarding how these terms were defined for the purpose of the survey makes it difficult to determine how many respondents were adequately prepared for the role, but it would appear that as reflected in the present research, many nurses employed in the Nursing Station role had not had the opportunity to undertake additional preparation specific to the role. Also similarly to the present study, in their study of continuity of care in three First Nations communities, Minore et al. (2005) determined that in particular, relief nurses working in the Nursing Station role lacked adequate preparation, which was defined as "ideally" including preparation in both primary care and community nursing, "preferably with several years' experience" (p. 93).

Adequate preparation in community health nursing provides nurses with the competencies required to provide preventive health services and engage in health promotion activities at the community level. Community health nursing competencies, such as familiarity with health promotion and community development models, a population-health focus, and the ability to work with aggregates as well as at the level of individuals, enable nurses to "see the bigger picture" of health care and thereby, to make the connection between the primary care of individuals and the broader thrust implied by community health: the interface of primary care and PHC (SmithBattle, Diekemper, & Leander, 2004). A knowledge base that supports nurses' ability to think critically about the complex issues that

³⁸ "Outpost certification" was not defined in this paper but conceivably included nurses who had completed the three months' Primary Care Skills course. Notably, nurses in the present study that had completed the PC Skills course did not consistently demonstrate primary health care, community health or cultural competencies.
³⁹ Advanced Practice preparation was defined as including both nurse practitioner and clinical nurse specialist

Advanced Practice preparation was defined as including both nurse practitioner and clinical nurse specialist preparation, not necessarily at a graduate degree level.

influence aboriginal health and to thereby develop a cultural safety perspective, facilitates nurses' offering care that is relevant to northern and aboriginal communities (Browne, 2005). Being adequately prepared as primary care providers obviously better enables nurses to provide safe, competent primary care. My previous research with experienced outpost nurses (Tarlier, 2001) suggested that providing competent primary care was also key to the ability of an individual nurse to establish trustworthiness in the eyes of patients and the community, thereby facilitating the formation of responsive relationships with patients. Thus, adequate preparation in each of the identified domains of competency is critical to support nurses' effectiveness within nurse-patient encounters.

Assisted Evolution: Shifting Nurses' Practice

In this study, issues at multiple levels of health services influenced continuity of care and health outcomes directly, and also affected nurses' ability to influence continuity and patient outcomes. In this section I will focus on the three issues that emerged as most central to nurses' practice and also as amenable to change at the systemic level: (a) supporting and facilitating adequate preparation for nurses, (b) modifying the effect of high rates of nursing turnover and reliance on inadequately prepared relief nurses, and (c) valuing and supporting preventive and health promotion activities that are consistent with a PHC approach. Two of these issues also emerged in my previous research with experienced outpost nurses, but from the perspective that nurses had developed practice competencies and had learned to value a PHC orientation through substantial experience that fostered their evolution into the outpost nursing role (Tarlier et al., 2003). One of the questions that emerged from that research was, how might we more effectively teach, or otherwise help nurses to develop the competencies that took several years to develop through experience? That is, how might we assist the process of evolution? The present research offered some solutions to these questions.

Seeing the Bigger Picture

Continuity of care represents patient care delivered along a temporal continuum (Reid et al., 2002); therefore, an underlying assumption of continuity of care is that health care providers provide health services with the understanding that each discrete patient encounter is linked to previous and subsequent encounters along the continuum. Continuity of care by definition obliges providers to consider "the bigger picture" of health, as it is relevant to each patient encounter. The tendency of nurses in the study site to dichotomize treatment services and preventive and health promotion services is fundamentally incongruent with continuity of care. Moreover, by focusing narrowly on treatment services and failing to link together discrete patient care events, nurses failed to see the bigger picture of health care, and thus lacked the temporal perspective necessary to facilitate continuity of care at the individual patient level.

An insight that emerged from the analysis of the findings of this study related to temporal perspectives of continuity of care. Perinatal health outcomes such as birth weight and gestational age at birth can be thought of as "windows" into two perspectives of continuity of care. One perspective is the vertical continuum of maternal-infant health, or the influence of continuity of care as it pertains to the health of a woman through pregnancy and the ensuing health of her infant. This is conceptually similar to the concept of the vertical transmission of disease from mother to infant. The second perspective is the horizontal continuum of health as it pertains to the health of a woman through subsequent pregnancies (and the health of each subsequent infant), or the health of an infant from birth through infancy and into adulthood, to either health, or potentially, the development of chronic disease in later life. These two perspectives imply a more global understanding of continuity that extends the usual reference to continuity at the individual level to include the

implications of continuity for health at the community level. This expanded understanding of the implications of continuity suggests that health care and interventions offered in the prenatal period might have more far-reaching effects than commonly appreciated in practice. That is, through the provision of prenatal care, nurses may influence health outcomes beyond the perinatal period and exert an influence on health beyond the level of the individual patient.

A conventional assumption in health care has been that prenatal care improves perinatal health outcomes. This broad assumption is currently challenged on some fronts (e.g., Agency for Healthcare Research and Quality [AHRQ], 2000) on the basis of an insufficient or flawed evidence base to support traditional prenatal practices, and the need has been identified for better evidence to substantiate current and widely accepted standards of practice and "routine" prenatal interventions. There has been increasing acknowledgment of the influence of social issues in determining perinatal health outcomes, and speculation that models of prenatal care, traditionally oriented towards the provision of medical care, will shift towards models of care that focus more on the social context of health (AHRQ; Misra, 1998). However, much past research has suggested that adequate prenatal care is associated with a decreased incidence of preterm birth (e.g., Krueger & Scholl, 2000) and low birth weight (e.g., Herbst, Mercer, Beazley, Meyer, & Carr, 2003). Research has also suggested that women who live in poverty, have a lower socio-economic status, or belong to a minority ethnic group are more likely to experience inadequate prenatal care, preterm birth and low birth weight infants (Krueger & Scholl; Misra). Given the context of inequity and marginalization that characterized the study site community, the body of evidence related to prenatal care supports the need to deliver not only adequate and appropriate primary prenatal care in the study site, but also suggests that the focus of primary prenatal care in similar

communities should shift to a broader focus on the social context that also influences perinatal health outcomes.

Similarly, while the postpartum visit represents a discrete patient encounter, it offers a window of opportunity to influence continuity of care and the health of not just one, but two individuals over a continuum of time. Lu and Prentice (2002) noted that the postpartum visit "is believed to offer an important opportunity to assess the physical and psychological wellbeing of the mother, counsel her about breast-feeding and family planning, initiate preconception care for the next pregnancy, and address nascent problems within the family" (p. 1329). While Lu and Prentice did not find that a postpartum visit was significantly associated with duration of breast-feeding (possibly because a postpartum visit at six weeks was too late to offer effective intervention regarding breast-feeding), they speculated that the value of postpartum visiting was nevertheless supported by these other benefits. Berenson and Wiemann (1997) found that attendance at a postpartum visit was one predictive factor of reliable contraceptive use among adolescent mothers (n = 349). The postpartum visit also offers a valuable opportunity for screening for postpartum depression (Stowe, Hostetter, & Newport, 2005). These studies are relevant to the sample population, comprised as it is of a large percentage of adolescent women, women who experienced a short inter-pregnancy interval, and women with pre-existing social and mental health issues. In another study of adolescent mothers, Stevens-Simon, Kelly, and Singer (1996) found that mothers of incompletely immunized infants at eight months of age (n = 150) were less likely to have attended for early routine postpartum care. This finding supports speculation that one strategy for increasing the infant immunization rate in the study site might lie in targeting mothers for early routine postpartum care.

The FNIHB Community Health Manual⁴⁰ directs nurses working in Nursing Stations in First Nations communities to encourage women to attend a routine postpartum follow-up visit at 4 weeks postpartum, and to carry out such follow-up checks as part of nurses' expanded nursing role. Thus postpartum follow-up is explicitly an expectation of the nursing role in such settings. Attending a postpartum visit specifically for postpartum follow-up care was added to the Prenatal Data Collection Protocol of this study (see Appendix E) at the suggestion of an obstetrician who was familiar with prenatal and postpartum care in the study site community, based on this practitioner's observation that postpartum visits tended to be poorly attended by women. This practitioner offered anecdotal evidence to support speculation that failure to obtain routine postpartum care was associated with both the prevalence of short inter-pregnancy interval observed in the community, and with the lack of success in identifying Type 2 diabetic women from women who developed gestational diabetes.

The FNIHB *Community Health Manual* specifies adolescent women and women with primiparous and grand multiparous pregnancies as belonging to high-risk groups and directs nurses to engage in what is essentially a proactive model of care with women in these groups, including making a prenatal home visit and actively encouraging women to attend routine prenatal visits. However, few nurses in the study site were aware that a Community Health Manual existed. The FNIHB *Clinical Practice Guidelines* (Health Canada, 2000c) for providing prenatal care provides direction to nurses regarding the provision of medically oriented assessment and management of prenatal patients but fails to distinguish between

⁴⁰ The *Community Health Manual* is a loose-leaf binder that has traditionally been kept in all FNIHB Nursing Stations. It provides information and specific guidelines to nurses related to community health program expectations, such as the maternal-infant, immunization, and school health programs.

patients with differing categories of risk or to offer direction tailored for specific risk groups, such as adolescents.

Clinical guidelines, manuals and protocols are not in themselves sufficient to support nursing practice. Guidelines and protocols are useful resources but do not replace practice knowledge and skills (Vukic & Keddy, 2002). Safe, competent and ethical practice is contingent on nurses' having the core competencies necessary to support practice. Nursing practice that is expanded and advanced beyond what nurses are prepared for by basic nursing education requires additional preparation. The Silverman et al. study (2001) identified specific areas of competency as priority continuing education needs of FNIHB-employed nurses working in aboriginal communities. The identified areas included health and physical assessment skills, primary care, perinatal care, and primary care of women and children. The findings of the present study suggest that these competencies may more correctly be considered necessary to the basic preparation of nurses working in the Nursing Station role. That is, these are core competencies required for practice rather than continuing education needs.

The sequelae of sub-optimal maternal-infant health outcomes are pervasive and carry short-term and long-term implications for health at both the individual and community level. At the shorter-term, individual level they may contribute to poor health and increased suffering of individuals and families, while at the longer-term, community level, sub-optimal maternal-infant outcomes may perpetuate patterns of poor health by increasing the prevalence of the chronic diseases that plague aboriginal populations. By increasing the burden of disease within the community, poor maternal-infant outcomes have the added incidental effect of increasing demand on the local health services system, already compromised by perceived high workload demands and the challenges of attracting and
retaining sufficient numbers of adequately prepared nursing staff. Nurses, adequately prepared to provide effective maternal-infant primary care within a broad community-based PHC model, potentially offer a key intervention strategy to break the cycle of poor health and sub-optimal outcomes. Nurses' preparation as first-line maternal-infant primary care providers is a critical aspect of adequate preparation for the Nursing Station role and demands equitable valuation with other aspects of preparation, such as managing emergency and trauma situations.

Preparing Nurses for Practice

In some respects, examining how nurses might be better prepared for the Nursing Station role involves a glance into the past. As mentioned previously, in Chapter Three, recognizing the need for role-specific preparation for outpost practice is not new, but has historic roots in programs such as the Dalhousie Outpost and Community Health Nursing Program. However, politically based changes in funding policy resulted in the withdrawal of federal government funding from the Dalhousie program in 1997, forcing its closure after 30 years of preparing nurses for outpost nursing practice. While funding was purportedly "allocated to regionally-based educational initiatives" (Martin-Misener et al., 1999, p. 205), there was little evidence in this study to suggest that comparable educational preparation was available to or accessed by nurses in the study site, and in fact, seven years after its closure, the "Dal" program continued to be lauded by participants in this study as the standard of education for nurses working in the Nursing Station role. An external evaluation of the Dalhousie program in 1994 substantiated the value and appropriateness of the specialized education the program provided to prepare nurses for the Nursing Station role (Chavtor,

1994). Significantly, the Dalhousie program was a one-year program⁴¹ that offered substantially greater content and opportunity for clinical practice than the three or four-month long Primary Care Skills programs. Thus, while acknowledging that the PC Skills course continues to be of value and offers nurses basic preparation as primary care providers, it falls short of the standard of preparation for Nursing Station work recognized by the *Hall Report* more than 40 years ago (Martin-Misener et al., 1999).⁴²

Consistent with the literature that has identified similarities between the Nursing Station role and the nurse practitioner role (Gregory, 1992; Tarlier et al., 2003; Vukic & Keddy, 2002), many of the health professionals who participated in this study also believed that the Nursing Station role was essentially a nurse practitioner role, albeit nurse participants did not perceive themselves as either working or being prepared to work at the level they identified with nurse practitioner practice. These nurse participants viewed NPs as practitioners who would not only have an expanded knowledge base that would enable them to better cope with the broad scope of primary care practice in the Nursing Station, but NPs would also bring a more balanced, holistic perspective to a practice environment where there was a tendency to narrowly focus on the medical aspects of care. That is, nurse practitioners would be prepared to deliver primary care services within a broader PHC model. Although nurses working in the Nursing Station identified NP preparation as the most appropriate to support Nursing Station practice, only one participant had pursued nurse practitioner education.

⁴¹ The Dalhousie diploma program was approximately one academic year in length for baccalaureate-prepared nurses and approximately two academic years in length for diploma prepared nurses. The longer program length for diploma-prepared nurses was to include the theoretic and clinical content in community health nursing that degree-prepared nurses were assumed to have gained through degree education.

⁴² As of October 2005 the Primary Care Skills course has not been offered in Manitoba for close to a year and is not expected to be offered again until the Fall of 2006, leaving nurses in Manitoba without access to a PC Skills program.

There is an underlying inconsistency in requiring NPs practicing in more mainstream regions to be both licensed and more highly educated than nurses working in northern, remote and predominantly aboriginal communities, yet who are functioning in a similar role within an arguably more complex context, and often with less immediate support. This inconsistency was noted by a nurse participant in this study: "If nurses in southern Manitoba are expected to have this training to practice, why should it be any different for the north?" This observation revealed an issue of inequity that will foreseeably contribute to further marginalization within health services in remote communities. Thus, in view of the contemporary national trend that has resulted in the development of tools by which to support better education for NPs, such as established competencies and standards for NP practice (CNA, 2005a), recommended standards of educational preparation (CNA, 2003), and both a national examination (CNA, 2005b) and as of 2005, licensure and regulation of NPs in the majority of provinces and territories, it becomes increasingly difficult to justify employing nurses with lesser preparation to provide comparable services in a similar scope of practice in remote aboriginal communities.

The findings of this study offered insight into how nurses' preparation for the Nursing Station role influenced nurses' ability to positively influence continuity of care and health outcomes. All nurses starting employment with FNIHB in Manitoba are now provided with a three-week long orientation period, an important step forward over times past when newly recruited nurses received little or no formal orientation to Nursing Station work. Nurses who commit to fulltime employment with FNIHB are sponsored to the three-month long Primary Care Skills course, which prepares them at a basic level to function as primary care providers but does not provide preparation in community health nursing, community development or extensive exposure to aboriginal health issues. Vukic and Keddy (2002) and Tarlier et al.

(2003) each noted that getting out into the community and being seen to participate in the local community was an important aspect of both nurses' learning about the community and developing a trusting relationship with the community. Similarly, SmithBattle et al. (2004) advocated the value of experiential learning through community contact and in particular, home visiting, to consolidate theoretical learning related to community health. These authors viewed the experience of working with individuals and families in the community as necessary to develop responsiveness within nurse-patient relationships, which increased nurses' receptiveness to patients' standpoints. Beach and Jong (1996), describing the Northern and Family Medicine Program at Memorial University, Newfoundland, recognized the value of specialized preparation for physician residents intending to practice in remote and aboriginal communities. In particular, learning about the community as a whole was seen as an important aspect of being prepared as a community-based practitioner. Physician residents in the program were encouraged to participate in home visits to patients in the community as a learning strategy. In contrast to the recommendations of these previous works, in the study site, nurses' participation in home visiting had been curtailed, with the effect that nurses working in the Nursing Station had little or no contact with patients in their homes and out in the community.

Notably, no participants in this study had community health nursing experience prior to working in the Nursing Station. Moreover, nurses may work for several months before having an opportunity to take the PC Skills course. Fulltime FNIHB employees without baccalaureate degrees in nursing may have the opportunity to also take the CHN upgrading course. However, some baccalaureate-prepared participants in this study had little exposure to community health nursing in their basic nursing program and may have also benefited

from a community health nursing course that was specific to nursing in aboriginal communities.

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Perhaps most significantly, there was little indication in the findings of this study that participants' preparation in either basic nursing or subsequently had incorporated knowledge regarding the historical and socio-political context of aboriginal health services. Without this background knowledge to provide a sense of historical and political perspective to foster critically thinking about the issues they encountered in practice, nurses (and other health care professionals) were vulnerable to practices such as othering and normalization of risk. Browne (2003, 2005) recommended that critical perspectives of aboriginal policy and the social determinants of aboriginal health be included in basic nursing education as well as continuing education for nurses, to increase nurses' awareness of embedded practices that supported othering. Such content comprises a critically important aspect of adequate preparation for nurses working in aboriginal communities.

Relief Nurses: Turning Liability into Asset

The corollary of the high rate of nursing turnover in the study site was the large number of relief nurses that rotated through the Nursing Station, both during the two-year period covered by the chart review and during the data collection period itself: a veritable "revolving door" of relief nurses. Relief nurses presented a conundrum; in that they were necessary to backfill nursing positions that would otherwise remain vacant, yet particular issues accompanied the extensive use of relief nurses. One issue was that relief nurses tended to be less adequately prepared for the Nursing Station role than the nurses employed fulltime by FNIHB, also a finding of previous research (e.g., Minore et al., 2005)⁴³. Another issue

⁴³ While this and the Minore et al. (2005) study found that in general, relief nurses tended to be less wellprepared for the Nursing Station role than fulltime FNIHB employees, I acknowledge that many relief nurses

was the short-term assignments that relief nurses often worked, coming into communities for as little as a week, with predictable effects on continuity of care (Minore et al.).

Relief nurses in the study site were often employed by another employer in addition to FNIHB; for example, by one of the acute care hospitals in an urban setting. Commitments to other employers limited relief nurses' availability for Nursing Station work and also tended to limit their availability to take a fulltime course such as the Primary Care Skills course. Moreover, being sponsored to the course carried the expectation that nurses would work a prescribed amount of time following course completion, which was impractical for some relief nurses, considering their obligations to other employers.⁴⁴ Thus, relief nurses were necessary to meet staffing needs, but they "fell between the cracks" in that not only did they tend to be less adequately prepared than fulltime FNIHB nurses, they might also continue to work on an intermittent basis in the Nursing Station role for several years without meeting the educational standard expected of fulltime employees, which itself fell short of the standard of preparation recognized by the Hall *Royal Commission Report* (1964, cited by Martin-Misener et al., 1999).

A third issue related to the use of relief nurses was the perception of some fulltime FNIHB participants that relief nurses' motivations for working relief were primarily financial. Relief nurses' motivation was viewed as placing them in a conflict of interest with the operations of the Nursing Station, in that relief nurses were perceived to be more likely to see patients after-hours for problems that were deemed non-emergent, which was viewed as inappropriately fostering dependence on the Nursing Station and increasing the after-hours

are well-prepared, having in some cases worked for several years fulltime in the role and having substantial educational preparation, such as the Dalhousie diploma program or NP education.

⁴⁴ NB: Relief nurses were expected to provide one years' service within one year in return for being sponsored to the PC Skills course. Under special circumstances it could be arranged to work back the 12 months over a two-year time period.

nursing workload. Overtime pay was lucrative and some relief nurses were viewed as taking advantage of the availability of overtime work. However, fulltime nursing staff at times failed to appreciate two issues that may have influenced relief nurses' decision to see patients after-hours: (a) relief nurses' inadequate preparation for the Nursing Station role and (b) the short-term, temporary assignments of relief nursing work meant that relief nurses were often unfamiliar with patients and the local community. Therefore, relief nurses sometimes tended to be less capable and less confident managing and triaging patients who phoned after-hours requesting to be seen by the nurse on-call.

Although recognizing that encouraging responsible use of after-hours and emergency services was important in the study site, from the perspective of ensuring that patients had equitable access to health services (i.e., that access was comparable to other Canadian communities), it was more concerning that in the study site, both fulltime and relief nurses sometimes failed to see patients who presented over the telephone with a reasonable indication to be seen. Failure to see patients when indicated and seeing patients after-hours when not strictly indicated were both functions of inadequate preparation and reflected not only a lack of knowledge and competency related to patient assessment and the ability to discern significant versus minor problems, but also a lack of knowledge related to the sociohistorical context of health services in remote aboriginal communities. That is, while the need to decrease patients' inappropriate dependence on the Nursing Station was impressed on nurses, this was done without ensuring that nurses understood the dynamics that had fostered dependence in the first place. Thus, whether relief or fulltime employees, nurses' perception of First Nations patients as "needy" and "dependent" was a perception that helped to perpetuate the process of othering.

The current structure of FNIHB as it pertained to the employment of relief nurses, whether directly as FNIHB employees, or through the intermediary of a nursing agency, supported the utilization of nurses who tended to be poorly prepared for the Nursing Station role. Staffing challenges have created the circumstance where the system now relies on relief nurses who are often available to work only short periods of time, and who are often placed in a different Nursing Station on each tour of duty. Relief nurses are well reimbursed, have travel expenses paid, and as pointed out, overtime pay makes even a short work contract a lucrative endeavor from the nurses' perspective. The present system supports the dynamic that allows these nurses to continue to work on a short, intermittent basis in the Nursing Station role with little expectation that they acquire adequate preparation. As the findings of this study suggested, this system has obvious implications for continuity of care and health outcomes. Relief nurses are viewed as a stopgap measure, therefore as needing only sufficient preparation to "get by", that is, to see patients in clinic and provide emergency oncall coverage. However, the current trend in patterns of nursing shortages (Kulig et al., 2003) makes it likely that relief nurses will continue to provide needed services in the foreseeable future. At present, reliance on poorly prepared relief nurses to backfill nursing vacancies represents a liability in terms of continuity of care and health outcomes. However, this liability could potentially be turned into an asset by ensuring that relief nurses are well prepared for the Nursing Station role.

Based on personal clinical and anecdotal evidence, some nurses who provide reliefnursing services in northern communities are experienced and proficient in the Nursing Station role, often with nurse practitioner education and credentials, and often nurses who have had several years' experience as fulltime employees of FNIHB or one of the northern territorial governments. While no research has been done to date to examine whether better-

prepared relief nurses might be associated with improved continuity of care and health outcomes, common sense suggests that well prepared relief nurses may work more effectively than poorly prepared relief nurses. Furthermore, the expertise of well-prepared relief nurses represents a resource for oftentimes less well-prepared and experienced fulltime nurses.

To turn reliance on relief nurses into an asset and a strategy by which to improve continuity of care and health outcomes implies exploring new models of recruitment and reimbursement of relief nurses at the regional level. This would require a shift in understanding the scope and value of the relief nurses' role. Rather than being viewed as a stopgap measure, relief nurses must be acknowledged as an integral aspect of health service delivery in remote communities. Relief nurses require equivalent preparation to nurses employed on a fulltime basis. As well, relief nurses require preparation specific to working on a relief basis in different communities. For example, relief nurses require knowledge of the context of remote aboriginal communities and skills in how to effectively establish relationships within a community (Tarlier et al., 2003). Relief nurses require the full set of Nursing Station competencies to allow them to work effectively and efficiently as soon as they arrive in a new community, to "pick up the ball and run with it". Relief nurses, like fulltime nurses, require support to acquire educational preparation and appropriate experience. Additionally, reimbursement of well-prepared nurses, whether relief or fulltime, would need to reflect the advanced level of preparation and specialized knowledge and skills of these nurses.

Putting "Health" Back into Primary Health Care

By positioning this research within an understanding of the influence of the broader context, study findings suggested strategies whereby nurses' practice might hold one of the

keys necessary to help shift the broader context. That key is primary health care. In its most essential definition, PHC has the expressed goal of enabling populations to achieve equitable health through effecting meaningful and sustainable change in the broader social dimensions that influence health. The Ottawa Charter identified these: "The fundamental conditions and resources for health are peace, shelter, education, food, income, a stable eco-system, sustainable resources, social justice and equity. Improvement in health requires a secure foundation in these basic prerequisites". While it would be neither appropriate nor realistic to propose that nurses alone are responsible for "providing" PHC, it would be reasonable to speculate how, by reflecting the essential tenets of PHC, nurses' practice might contribute to the contextual shift necessary to effect meaningful change in the social determinants of health.

While several of the issues that influenced nurses' practice and continuity of care and health outcomes are amenable to change, social issues embedded within the broader context of the study must be considered ultimately responsible for fostering a situation that has resulted in sub-optimal perinatal and infant outcomes. Macro-level change in the social conditions that have perpetrated and perpetuate both marginalized health and marginalized nursing practice is fundamental to successfully implementing and sustaining potential change at the micro and meso-level:

The stressful and impoverished environment in which many minority and low-income women live may be a fundamental factor that influences pregnancy outcomes but cannot be overcome easily with narrowly targeted interventions. Improvements in perinatal health may depend on the commitment to address underlying social inequities. (Misra, 1998, p. 1662)

One of the identified goals of a PHC model of health service delivery is to address social inequities and facilitate change in the social determinants that effect health (WHO, 1978). Although the findings of my previous research (Tarlier et al., 2003) supported the

assumption that at least some nurses learned (primarily through experience) to work within a PHC model, the comprehensive model of PHC envisioned and advocated by MSB [i.e., FNIHB] in the late 1980's (Doucette, 1989) remained mostly an ideal, enacted in some nurses' practice in some communities, but not universally implemented as the model of care in Nursing Stations generally. As O'Neil et al. (1999) and Gregory et al. (1992) pointed out, despite FNIHB's espousal of PHC, the curative model of health persisted and remained characteristic of aboriginal health services in many if not most communities.

A key issue that contributed to the persistence of a curative model of aboriginal health services was that aboriginal people have had little input into their health care system (Evans, 2005; Lemchuk-Favel & Jock, 2004; O'Neil et al., 1999). This in itself contravenes fundamental principles of PHC that include community participation, collaboration and empowerment (WHO, 1978). Dichotomizing primary care and PHC effectually reinforced the pre-eminence of a neo-colonial, paternalistic and disease-oriented "health care model... [that] has consistently demonstrated its tenacity for keeping native people powerless" (Gregory, Russell, Hurd, Tyance, & Sloan, 1992). Admittedly, in some communities aboriginal people have had input into health services on a local level, for instance, through local health councils or health boards, but any input that has occurred at the broader systemic level has not been effective in catalyzing substantive change in the overall way health services are organized and delivered through FNIHB (Lavoie, 2004).

The process of othering emerged in this research as presenting a significant barrier to nurses' engagement with patients and with the community, thereby exerting a negative influence on continuity of care and health outcomes. Essentializing, culturist, paternalistic and racializing behaviours and attitudes on the part of nurses characterized othering. While othering behaviours and attitudes were enacted at the individual and group level, many of the

issues that contributed to and reinforced the process of othering were embedded at the macro level of health service organization. The paternalism and authoritarianism that has typified aboriginal health services has been written about extensively (O'Neil, 1986, 1989; O'Neil et al., 1999; Young, 1984). Paternalistic and racializing practices were reflected at the broader level by the living conditions that FNIHB provided nurses and other health care professionals. To attract health professionals to work in the community it was necessary to provide housing that was comparable to the housing health professionals were accustomed to in more urban settings. However, this housing could appear quite luxurious in contrast to the poor housing conditions that typified the lives of most aboriginal community residents. Thus inadvertently and largely unaware, nurses and other health professionals perpetuated a typically colonial living situation that was imposed by the larger organizational structure. The perceived privilege of nurses' lives in the community further isolated them from the community. In this way, racializing influences that contributed to the process of othering were reinforced at the broadest organizational level.

It would be obviously unacceptable to expect nurses coming to work in the community to live in the poor conditions that local people do. Offering improved housing conditions for nurses has been a nursing retention strategy of FNIHB in some regions. However, improving conditions for nurses without equitable change in the social and living conditions of local aboriginal residents has only amplified the inequity that reinforces a racialized environment. The solution lies in improving social conditions within the aboriginal community, to achieve parity with outsiders who come to work in the community. This would be consistent with the goals of a PHC approach that was faithful to the original philosophy identified by the WHO (1978) and to the principles of the *Ottawa Health Charter*

(WHO et al., 1986), yet there is little evidence of substantial change in, for example, the study site community.

Increasing the number of nurses of aboriginal background in the nursing workforce has been identified as key to improving the delivery of health services in aboriginal communities (Health Canada, 2002; INAC, 2004; Lemchuk-Favel & Jock, 2004), as well as a strategy to address the challenges of recruiting and retaining adequate numbers of nurses to meet the staffing needs of remote communities. Efforts to recruit and prepare aboriginal nursing students are in place in several schools of nursing (Health Canada). While this is undoubtedly a valuable and much-needed strategy, it may be unrealistic to view it as a panacea to the immediate and pressing challenges of providing health services in remote aboriginal communities. Considering the number of aboriginal nurses presently and the rate of increase, it represents a potential long-term solution. There is also a certain ethnocentric naivety in assuming that even if sufficient numbers of aboriginal nurses existed to meet the staffing needs of remote aboriginal communities, that an adequate number would choose to work in these settings (Health Canada). Again, this strategy represents micro and meso level changes that are not sustainable without concurrent change at the macro-level where health policy is made.

It was not an intention of this project to undertake a detailed examination of the influence of health policy on the micro and meso level factors that influenced continuity of care and health outcomes, but to acknowledge that policy at the macro level represents an important influence on health, and to reflect in general terms on the effect of policy on the findings of this study. The Health Transfer Policy that was implemented by Health Canada (i.e., through MSB) in 1986 in response to aboriginal demands for self-governance has been previously critiqued on the basis of both motivation and implementation. The Health

Transfer Policy has been perceived by some as an attempt by the federal government to divest itself of responsibility for providing health services to aboriginal people residing in reserve communities (Lavoie, 2004). Policy implementation has been criticized on grounds of inequitable funding issues and fragmentation between federal and provincial health jurisdictions that has resulted in gaps in service delivery (Lavoie). Additionally, aboriginal input at the policy level has been both limited and superficial (Fontaine, 2005; Gregory et al., 1992; Lavoie), resulting in a lack of autonomous planning and decision-making in all but a few aboriginal communities (Evans, 2005; Lemchuk-Favel & Jock, 2004; O'Neil et al., 1999).

In some communities health transfer has lead to fragmentation of health services within communities, as Bands take over responsibility for some aspects of services but other aspects are retained by FNIHB, as was the case in the study site. The fragmentation between federal and provincial health systems pointed out by Lavoie (2004) has in fact been further fragmented by the historical bureaucratic separation within federal government departments responsible for various aspects of aboriginal being (Lemchuk-Favel & Jock, 2004; MacKinnon, 2005); for example, FNIHB and INAC each have jurisdiction over different aspects of the social determinants of health that are germane to the well-being of aboriginal people. Fragmentation among bureaucracies has contributed to what O'Neil et al. (1999) characterized as a lack of service integration.

There has been a tendency for aboriginal health authorities to take over transferred health services on an "as is" basis, that is, in the form in which they were organized and implemented under FNIHB. This has reinforced the pre-eminence of the curative model of health service that is not necessarily reflective of either aboriginal health values or a PHC approach (MacKinnon, 2005; O'Neil et al., 1999). While some aspects of transferred health

services, notably social and health promotion programs, become more reflective of local aboriginal values over time, the undeniably important primary care services become more firmly entrenched in the curative model:

The lack of planning and developmental capacity in communities, as well as the immediate demands of service provision in a financial system that does not allow program enrichment, has meant that, in most cases, the original paradigm of federally delivered services continues to exist. (O'Neil et al., p.147)

While the transfer of authority for health services in aboriginal communities is prerequisite for the successful repatriation of aboriginal self-determination, barriers to successful implementation of transfer have arisen due to the piecemeal fashion that has accompanied the process of handing over responsibility and authority, a process that has itself been coloured by the paternalistic and colonial attitudes that have historically typified aboriginal relations with the federal government (MacKinnon, 2005). Despite this, health transfer is progressing and has been successfully implemented in several communities, for example, in the Eskasoni First Nations in Nova Scotia and the Nisga'a Valley in British Columbia (Lemchuk-Favel & Jock, 2004), and the Shibogama First Nations in Ontario (Angees et al., 1999). Notably, these examples of successful health transfer involved the transfer of all health services in the community. Evaluation of the Shibogama example suggested that transferring all services resulted in better integration of services, more direct communication links and better cooperation between different health agencies within the community, improved recruitment and retention of nurses, and greater voiced satisfaction on the part of both nurses and community members (Angees et al.). In contrast, in the study site, where partial transfer of health services occurred, there was evidence of fragmentation between the Band-operated public health services and the services that continued to be operated by FNIHB, characterized by ambiguous lines of reporting and accountability and a

lack of direct communication between providers in the different areas of health services. These issues influenced continuity of patient care both directly, and indirectly, by influencing nurses' ability to effectively manage continuity of patient care.

In most aboriginal communities, PHC has yet to be fully implemented. As the saying goes, we have talked the talk, but we have fallen short of walking the walk. Putting *health* back into primary health care will require a conceptual shift at the macro level of health policy planning to support the changes that are required at both the meso level of health service organization and the micro level at which nurses and patients interact.

In the summary of Chapter Eight I used the analogy of a house built on a fault line to describe the shaky foundation of a context that is typified by inequity and marginalization. The social inequity and marginalization must be addressed through broad health policy changes that are guided by the principles of primary health care that were set down by WHO (1978) and reconfirmed by the *Ottawa Health Charter* (WHO et al., 1986). To stabilize the fault line and support a way forward, health policy must be realigned to better reflect the essential philosophy and spirit of PHC. Ensuring that aboriginal people have a voice in health policy formulation at the highest level is part of the philosophical mandate of PHC, and is a necessary step towards breaking the grip of a system that has never really been freed of its colonial roots.

Recommendations

To remain consistent with the principles of PHC, the recommendations offered here are offered with the caveat that specific strategies and recommendations are most appropriately formulated with the input of the people most directly involved and affected by recommendations; in this case, nurses, their employers, and the aboriginal residents of remote communities. Moreover, I have deliberately avoided offering recommendations

specific to the study site as part of this dissertation on the basis that such specific detail may compromise the anonymity of the site and individual participants.

Study findings and specific recommendations arising from this study will be shared with both FNIHB and the First Nations study site community, in keeping with the ethical approvals granted by each of these key stakeholders. A final visit to the study site to present back findings and recommendations is currently being negotiated with the stakeholder groups and is anticipated for Spring 2006. Due to the sensitive nature of some of the data and the findings (e.g., poor health outcomes, inadequate or inappropriate nursing care by individual nurse participants), final plans for sharing the findings will be formulated in collaboration with representatives from each of the stakeholder groups. The role of these representatives will be to advise the most appropriate strategies for ensuring the findings are shared respectfully among all stakeholders. An important strategy to facilitate this objective is my commitment to ensuring that study findings are presented and understood within an understanding of the larger context.

The four recommendations presented here represent broad strokes that are relevant to change at the systemic and organizational levels. The first recommendation is to acknowledge the value of employing nurses in Nursing Stations who are adequately prepared to meet the expectations of the role. Ensuring nurses are adequately prepared to meet the challenges of northern nursing practice in primary care roles was recommended over 40 years ago by the Hall *Royal Commission*; yet in 2005, there is still no comprehensive strategy in place to ensure the competency of nurses working in these roles. Nurses, whether employed fulltime or on a relief basis, must demonstrate they have the core competencies necessary to support safe and effective practice in the Nursing Station setting. Nurses with the requisite knowledge and competencies will be better positioned to exert a positive

influence on continuity of patient care and hence, clinical health outcomes. Core

competencies include:

- 1. Competencies as a primary care provider.
- 2. Competencies in community health nursing.
- 3. Knowledge related to the historical and socio-political context of aboriginal health in Canada and to the concept of cultural safety (Browne, 2003, 2005).
- 4. Knowledge related to the philosophical approach of PHC and competencies to support PHC practice (e.g., community development competencies).

Nurses may be required to have obtained these core competencies as basic preparation for the role (e.g., through nurse practitioner education) or they may require employer support to access education to develop these competencies. As described earlier in this chapter, the recent trend towards developing standards of educational preparation for NPs offers tools to support improved education. Nurses without educational preparation in primary care (i.e., diagnosis, clinical decision-making, managing health conditions, ordering investigative procedures and prescribing and dispensing drugs) should be employed within a scope of practice that is consistent with their level of knowledge and competency.

The second recommendation is to recognize the long-term implications of perinatal and infant health, and the critical difference that continuity of care may make to maternalinfant health outcomes in particular, at both the individual and community levels. Support for health services that target children and childbearing women need to be prioritized. Strategies include (a) ensuring that nurses who have responsibility for providing maternal-infant primary care have the requisite core competencies to provide comprehensive primary care and facilitate the provision of seamless continuity of care to women and children, (b) working in collaboration with members of local communities to identify and decrease barriers to women's access to health services, (c) ensuring women of the community have a voice in shaping the delivery of health services to women and children, and (d) supporting

nurses to develop skills related to working with communities within a PHC and community development model (Orchard et al., 2000) with the aim of changing the social determinants that influence maternal-infant health.

The third recommendation is to examine the effectiveness of current strategies of nurse recruitment in terms of the delivery of safe and effective health services. The safety and effectiveness of health services must be evaluated in terms of patient health outcomes, cost-effectiveness and acceptability. Do current recruitment strategies identify and recruit nurses who have the requisite competencies to support safe, effective health service delivery and continuity of patient care in remote aboriginal communities, or nurses who are prepared to make a commitment to developing the requisite competencies? Or, as the findings of this study suggested, do current recruitment strategies tend to exacerbate the "revolving door" of nursing turnover? That is, by attracting nurses who are soon lost to attrition either because they are inadequately prepared for the role and leave employment after a short time, or who are unable to commit to acquiring the competencies needed for practice because of primary employment with another employer.

The fourth recommendation is to acknowledge the residual influence of the historic socio-political origins of aboriginal health services delivered through federal government agencies, and to recognize how these historic origins continue to influence health services and the health of aboriginal people at the macro, meso and micro levels described in this chapter. It is time to examine the policies and structures that have shaped health service delivery to the aboriginal Canadians who reside in remote communities: rectify those that support or perpetuate othering practices or inequity within health services, and strengthen and build on policies and structures that support and are congruent with the fundamental principles of PHC and that address change in the social determinants of the health of

aboriginal people. These changes would support the shifts to nurses' practice that are the key to improving continuity of health care and to effecting long-term, sustainable improvements in both health and nursing practice in remote aboriginal communities.

Significance of This Study and Future Research

This project represented perhaps the first attempt to link maternal-infant health outcomes, continuity of patient care and nursing practice in the context of health services in a remote aboriginal community. Focusing on maternal-infant outcomes offered a window through which to examine continuity at the individual level and importantly, to extrapolate findings related to continuity and fragmentation beyond the individual level to implications at the community and population levels along a trajectory of time. The findings of this work replicate and add depth to previous similar work in the context of aboriginal health services in remote communities (e.g., Minore et al., 2005).

This research has brought to light sub-optimal maternal-infant health outcomes that are particularly dismaying given the implications for long-term health beyond the individual level. The findings support a pressing need for changes in health services delivered to aboriginal people in remote communities. The interpretation of study findings at the level of the broader context of health and health policy formulation suggests that sustainable change must be supported by fundamental shifts in perspective at the policy level (Fontaine, 2005). By integrating a qualitative contextual analysis with hard quantitative data demonstrating outcomes, this work offers a depth of insight that contributes to better understanding of *how* these outcomes came about, and suggests multiple points of intervention, which are the focus of the four recommendations presented in the previous section.

Multiple points of intervention also imply multiple points for future research. Some of the points for future research, such as implementing and evaluating changes to broader

health policy, and the integration of the various sectors from which the social determinants of health arise, would be best served by an interdisciplinary research perspective. However, there is a need still for research that focuses more narrowly on the role of nurses within the health service system. Intervention studies examining how specific nursing interventions influence outcomes are needed, as well as studies that explore how standard nursing interventions may be better modified to meet the needs of aboriginal people. For example, what difference does early home visiting to mothers of newborns make to outcomes such as immunization status and infant nutritional status (i.e., hemoglobin level and weight gain), and how might home visiting be modified to be more culturally acceptable and contextually appropriate?

A less explicit area of nursing research lies in exploring and defining the role of nurses within a PHC approach (Orchard et al., 2000). Contrary to popular rhetoric, nurses and other providers do not "deliver" primary health care per se; they deliver discrete health services within an approach to health that embodies the philosophy, principles and values of primary health care. How does the practice of nurses support and reinforce these principles and values? What is an appropriate community development role for nurses in a community where the nurse is not a bonafide community member?

The most pressing need for nursing research lies in exploring innovative models of nurse preparation and staffing to find models that address the challenges of recruiting, educating and retaining nurses with the knowledge and competencies to facilitate continuity of patient care and improved health outcomes. New and more effective models of nurse preparation and staffing are desperately needed, not just to decrease the high rate of nursing turnover in remote aboriginal communities, but perhaps more importantly, to ameliorate the effects of nursing turnover.

A Closing Note

An identified aim of this research was to explore and describe nurses' practice. Several key findings were related to nurses' practice and offered valuable insights into how practice might be shifted to better meet the needs of aboriginal people residing in remote communities. Yet nurses' practice was subjected to and shaped by many of the same broader contextual issues that were associated with inequity and marginalization in this study. Paradoxically, until this context, specifically the social determinants of health that exert such a profound influence on the health of aboriginal Canadians, also begins to shift, shifts in nurses' practice are unlikely to be either effective or sustainable.

Nurses who choose to work in remote aboriginal communities are challenged on many levels: professionally, ethically, personally, socially, and emotionally. Nurses' motivations for choosing this work are varied, but for many, living in a remote community implies some degree of sacrifice in their own lives. Nurses, for the most part, intend to do a good job and want to *make a difference* by helping people to achieve better health. Despite the overall findings of this study, most nurses do make a difference, just by choosing to work in a remote aboriginal community. Choosing is the first step of a journey that is potentially rewarding on all of the same levels as it is challenging. The ultimate reward comes with the realization that this is an area of nursing practice where one *can* make a difference, but the road is difficult. The findings of this study suggested that some nurses are overwhelmed by the challenges and never complete the journey; others stop part way along the path and are afraid to move forward; and others may reach the end and find themselves not where they imagined themselves to be. By better supporting and guiding nurses along the road, helping them to avoid the pitfalls on the way, and ensuring they reach the end safely, employers,

educators and policymakers position nurses to provide safe and competent primary health care that *can* make a difference to the residents of remote aboriginal communities.

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APPENDIX A: Nursing Role Effectiveness Model

Nursing Role Effectiveness Model (Irvine, Sidani & McGillis Hall, 1998)

Structure

Process

Outcomes

Nursing-sensitive

patient outcomes

Functional status,

safety/adverse

satisfaction

control,

self-care, symptom

occurrences, patient

Patient

age, gender, education, type & severity of illness, co-morbidities

Nurse

Education, experience

Organization

Staffing, stff mix, worklaod, work environment

Independent Role

Nursing interventions

Medical-carerelated role

Medically directed care, expanded scope of nursing practice

Interdependent Role

Team communication, coordination of care, case management

From: Doran, DM (ed.). (2003) Nursing Sensitive Outcomes: State of the Science. Sudbury MA: Jones & Bartlett

APPENDIX B: Adapted Conceptual Model

Adequacy of Care:

-standards of care met per specific

-referral notes provided on referral

-managing F/U with consultant

-nurses' access to/knowledge of

-"taking on" responsibility for

-patterns of communication, comm tools

indicator condition criteria

-Appropriate Interventions

-Appropriate referrals

of different providers

Quant:

Oual:

guidelines

Structure

Process

Outcomes

Patient Population Factors

age, gender, type & severity of illness, comorbidities

First Nations : social determinants of health

Nurse Factors

Education, experience

Certification / licensure

Core knowledge/ competencies

Health Centre/ Organizational Factors

Worklife Factors: Staffing, staff mix, workload, work environment, living environment, clinic – community relationships NP-type Role Nursing interventions Primary care: Expanded scope of nursing

practice Advanced nursing

functions: Team communication

Coordination of

care Case

management

-formal time for comm activities

autonomous practice

-Mechanisms for F/U

Clinical outcomes:

Satisfactory vs. unsatisfactory:

1) Otitis media

2) Prenatal care

3) Care of newborn 1st year

Hypertension

Continuity of Care

Framework for Analyzing Continuity of Care Relational -ongoing relationships -Consistency of personnel -Informational

-information transfer

-Accumulated knowledge

Management

-standards & consistency of care

-flexibility



Data Collection Protocol Questions	Source of Data		
Structure:	Source of Dula	Data Analysis	Expected Output
a) Nurses			
Who are the nurses?	Survey: of nurse demographics	Decominting	T-1-1
What is their educational preparation for the primary	Survey: of nuise demographies	Descriptive stats	Tabular
care role?	Focused Interviews: w/ nurses	Content analysis	Normative guardense
What is their nursing experience?	(clarification of survey data)	(? comparison w/	Narrative summary
What is their experience in the primary care role?		(! comparison w/	
b) Patients			
Who are the patients?	Census data: in Canada,	Descriptive stats	Tabular
What are the demographic characteristics of patients?	Statscan (census data is		ruoului
What is the community health profile?	available by Indian Reserve)		
What are the demographic characteristics of the	US ? (need to find out)		
community?			
what are other defining characteristics of the	Direct observations: Fieldnotes		
community? i.e., location, access, transportation,	Focused Interviews w/ nurses,	Content analysis	Narrative summary
etc.	patients, staff		
etc.	Artifacts: maps, transportation		
c) Organization	schedules, photographs		
How is the work environment organized?			
What internal resources are available?	Artifacts: organizational chart,	Content analysis	
What is the organizational infrastructure?	Direct observations: Fieldrate		
	Direct observations: Fleidhotes		
Who are the non-nursing staff? What are their roles?	Artifacts: staff roster job		
How do non-nursing staff support nurses' work?	descriptions	Contant analysis	
What is the nurse's usual workload?	Direct observations	Content analysis	Narrative summary
How adequately is the facility staffed?	Interviews: non-nurse staff	<i>.</i> .	
	Fieldnotes, tapes/transcripts		
How much overtime / extra work do nurses work?	Artifacts: work schedules.		

Appendix D: Data Collection Protocol Questions

Do nurses have adequate resources to support their	overtime records		
work?	Interviews: nurses		
How satisfied are nurses with their work environment?	Work Satisfaction Questionnaire	Descriptive stats	Tabular
		-	
Process:			
a) Independent Nursing Role			
What is the nurses' role in primary care?	Open-ended Interviews w/		
How is the primary care role supported?	nurses, managers		
(i.e., provincial / state legislature, medical directives,	Artifacts: job descriptions,		
protocols, drug formulary, etc.)	legislation documents,	Content analysis	
Do nurses have an adequate body of knowledge to	protocols, medial directives,		
support their role in primary care?	clinical guidelines, etc.		Narrative summary
Do nurses have adequate access to knowledge /			
guidelines / protocols?			
How do nurses actually access knowledge / guidelines	Direct observations: Field notes		
/ protocols, etc?			
How adequate do nurse find their access to knowledge			
/ guidelines / protocols, etc?			
Do nurses implement appropriate interventions,		Descriptive stats	Tabular
including appropriate referrals?	Chart data: interventions,	-	
How do nurses demonstrate taking-on of responsibility	referrals, F/U		
for their autonomous practice?	Direct observations: Field notes	Content analysis	Narrative summary
What hinders / supports nurse's ability to manage			
independent-role work?	Open-ended Interviews		
b) Interdependent Nursing Role			
what is the nurses' role as an interdisciplinary /			
Interdependent team member?	Direct observations: Fieldnotes		
who is responsible for case management /	- patterns of communication in		
coordination of care?	health center & externally w/	~	
How do team members communicate?	consultants, diagnostics, etc	Content analysis	Narrative summary
What is the nurses' role in communication?	- coordination of care activities:		
Who else is involved in communication &	communication patterns within		

coordination activities?	community		
What hinders /supports nurses' ability to manage	- formal & informal		
interdependent-role work?	mechanisms for F/U		
	Artifacts: comm tools, i.e.,		
	referral forms, F/U lists, tickler		
	or "chronic" files, etc		
	Open-ended Interviews w/		
	nurses, ? consultants		
Outcomes:			
What are the clinical outcomes for patients w/ the	Chart data	Descriptive stats	Tabular
selected indicator conditions?			
Do clinical outcomes reflect that standards of care are			
being met? (i.e., adequate quality of care)		N	
Do clinical outcomes reflect continuity of care?			
Are there identifiable specific or consistent gaps in			
continuity of care? Why?			
Do the clinical outcomes data accurately reflect	Open-ended Interviews /		
nurses' / managers perceptions of the quality of care	conversations w/ nurses,	Content analysis	Narrative summary
being delivered?	managers, patients	() () () () () () () () () ()	
Do the clinical outcomes data accurately reflect	Direct observations: Fieldnotes		
patients' perceptions of the quality of care received?			
How do patients experience continuity of care?			
	Open-ended Interviews:		
	exemplar cases		

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APPENDIX E DATA ABSTRACTION INSTRUMENT PROTOCAL: PRENATAL CARE

Variable #	Variable Name	Data Entry	Criteria
1	ID #	PN001 – PN050	 Charts selected through random number generation based on entries in "Birth Book" Eligible if a) delivered between Sept 1, 2001 – Aug 31, 2003; b) received most of prenatal care in SL; c) living in SL and receiving care primarily in SL during first year post partum Episode of care is determined per pregnancy, rather than per woman, therefore an individual may be eligible for entry in study more than once, if she delivered two pregnancies during the predetermined time period
2	AGE		• Age in years at time of initial prenatal visit
3	PRENATAL RECORD	1 = YES; 0 = NO	Prenatal record (original or copy) on patient chart
A	INITIAL PRENATAL VISIT		
4	PROVIDER	RN NP MDF MDO UNKNOWN	 Type of provider: RN refers to a registered nurse, NP refers to nurses who are licensed or certified as a nurse practitioner in any Canadian or American jurisdiction, MDF refers to a Family Practice physician, MDO refers to an OBS Each unique provider will also receive a numerical identifier, i.e., RN1, MDO1, etc. UNKNOWN refers to a visit wherein the provider is not identifiable
5	G/P/A	1 = YES; 0 = NO	• G/P/A status of patient noted
6	POBSHX	1 = YES; 0 = NO	• Past obstetrical history completed; i.e., includes date, gestational age at delivery (or at loss of pregnancy), hours in labour, delivery type, perinatal complications, sex, birth weight and present health of children

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7	FMHX	1 = YES; 0 = NO	• Relevant family history documented as per Prenatal Record; at minimum, must include notation re: diabetes, hypertension, genetic conditions, multiple gestations
8	MEDHX	1 = YES; 0 = NO	• Relevant past and present medical history documented as per Prenatal Record; at minimum, must include notation re: allergies, current medications, diabetes, hypertension, CV or respiratory concerns
9	SOCHX	1 = YES; 0 = NO	• Relevant social history documented as per Antenatal Record; at minimum, must include notation re: nutrition, smoking, alcohol/drug use
10	INITIAL EDD	1 = YES; 0 = NO	Initial EDD documented
11	LMP	1 = YES; 0 = NO	• Last menstrual period noted, includes length of cycle, regular vs. irregular and method of contraception used if applicable
12	HX @ 1 ST VISIT	1 = YES; 0 = NO	Prenatal history documented
13	P/E	1 = YES; 0 = NO	Physical exam documented on Prenatal Record
14	BP	1 = YES; 0 = NO	• BP @ 1 st visit documented on Prenatal Record
15	WT	1 = YES; 0 = NO	• Weight at initial prenatal visit noted on Prenatal Record
16	RUB TITRE	1 = YES; 0 = NO	Patient's rubella titre documented on Prenatal Record
17	MSU	1 = YES; 0 = NO	• Patient record shows evidence that urinalysis (MSU) obtained at time of initial prenatal visit
18	PAP/SWBS	1 = YES; 0 = NO	• Patient record shows evidence that pap and smears obtained at time of initial prenatal visit
19	HGB	1 = YES; 0 = NO	• Patient's hemoglobin documented at time of initial prenatal visit
20	RH	1 = YES; 0 = NO	Patient's Rh status documented on Prenatal Record
21	U/S	1 = YES; 0 = NO	• Ultrasound documented on Prenatal Record; includes notation re; date, gestational age by ultrasound, comments if relevant
22	PN VITS	1 = YES; 0 = NO	Patient record shows evidence that prenatal vitamins prescribed
23	XXX	1 = YES; 0 = NO	• (variable protected to protect study site anonymity)
24	NUTRITION COUNS	1 = YES; 0 = NO	Evidence of nutritional counselling done
25	SUBS COUNS	1 = YES; 0 = NO	Evidence of substance use counselling done

26	BF ED	1 = YES; 0 = NO	Evidence of breast feeding education done
27	RISK FACTORS	1 = YES; 0 = NO	Evidence of risk factor assessment done
В	ROUTINE		
	PRENATAL		
	VISITS		
28 VISIT 1	14-16 WKS	1 = YES; 0 = NO	• For each visit: Provider
29 VISIT 2	16-24 WKS	1 = YES; 0 = NO	• For each visit: WT, BP, U/A, GA (WKS), FUNDUS
30 VISIT 3	24-28 WKS	1 = YES; 0 = NO	• For each visit > 24 wks: FUNDUS
31 VISIT 4	28-30 WKS	1 = YES; 0 = NO	• For each visit > 16 wks: FETAL HEART, FETAL MOVEMENT
32 VISIT 5	30-32 WKS	1 = YES; 0 = NO	• At 16-18 wks: MSS
33 VISIT 6	32-34 WKS	1 = YES; 0 = NO	• At 28 wks: RPT HGB, RH, GLUCOSE SCREEN 50 GM
34 VISIT 7	34-36 WKS	1 = YES; 0 = NO	• If the patient has missed a visit but there is evidence that care was
35 VISIT 8	37 WKS	1 = YES; 0 = NO	received elsewhere (e.g., in another community), note under Remarks
36 VISIT 9	38 WKS	1 = YES; 0 = NO	• If the patient received visits in addition to routine visits, this data will
37 VISIT	39 WKS	1 = YES; 0 = NO	be captured as a non-routine visit, as either a follow-up or referral /
10			consultation.
С	NON-ROUTINE		
	VISITS:		
	REFERRALS,		
	CONSULTS,		
	FOLLOW-UP		
38	INTERVENTION	1 = YES; LEAVE	• If an intervention is indicated score +1 for this visit, if not indicated
	INDICATED	BLANK = NO	leave cell blank
			• Indication for interventions, e.g.:
			\circ Hgb < 10 is an indication for ferrous gluconate Rx
			intervention
1			• UTI is an indication for abx Rx
			• Hyperemesis gravidarum is an indication for gravol 25-50
			mg. po q 4-6 hrs (Dicletin requires MD consult)
39	TYPE OF	1 = CLINICAL	Note whether a clinical / therapeutic intervention or a social
	INTERVENTION	2 = SOCIAL	intervention, comment under Remarks prn

40	INTERVENTION INITIATED	1 = YES; 0 = NO	• If intervention is initiated score +1 for this visit
41	APPROP F/U	1 = YES; 0 = NO	 If appropriate follow-up of the intervention is documented score +1, if appropriate F/U not documented, score 0 Indication for follow-up, e.g.: recheck u/a after course of antibiotics recheck low hemoglobin GTT done if indicated by Gestational Diabetes Screen done at 28 weeks, i.e. result > 7.8 mmol/L recheck elevated BP, edema, u/a, headaches, visual disturbances, bleeding or any other unusual or worrisome symptom or sign
42	REFFERRAL OR CONSULT INDICATED	1 = YES; LEAVE BLANK = NO	 If referral or consultation is indicated score +1 for this visit, if not indicated leave cell blank Indication for referral or consultation, e.g.: bleeding past 12 weeks' gestation referral to obstetrician if high risk factors identified abnormal GTT suspected IUGR any obstetrical emergency, i.e., abruptio, eclampsia, preterm labour
43	REFERRAL OR CONSULT INITIATED	1 = YES; 0 = NO	• If referral or consultation is indicated and initiated score +1 for this visit, if indicated but not initiated, score 0
44	REFERRAL OR CONSULT DONE	1 = YES; 0 = NO	• If referral or consultation occurred score +1 for this visit, if no evidence that it occurred, score 0
45	IND. FOR F/U OF REFERRAL OR CONSULT	1 = YES; 0 = NO	• If a follow-up visit is indicated > referral or consult, score +1, if not documented, score 0
D	OUTCOMES		

46	GSTAGED	1 = YES; 0 = NO	• Gestational age in weeks at time of delivery between 38-42 weeks
47	BRTHWT	1 = YES; 0 = NO	• Infant birth weight 2500 – 3999 gms
48	COMPL	1 = YES; 0 = NO	• Complications of labour and delivery, e.g.:
			 delivery < 38 weeks
			 eclampsia / PIH
			 post partum bleed
			• C/S for CPD or malpresentation (e.g., breech) not counted as
			a complication unless infant > 4400 gms
50	PPVISIT	1 = YES; 0 = NO	• PP Visit at 6-8 wks post partum documented in patient chart

DATA ABSTRACTION INSTRUMENT PROTOCAL: NEWBORN CARE IN THE FIRST YEAR

Variable #	Variable Name	Data Entry	Criteria
1	ID #	NB001 – NB050	• Born between Sept 1, 2001 and Aug 31, 2003
2	Gender	1 = M, 2 = F	
3	PP Ref Form	1 = YES; 0 = NO	Post partum referral form on patient chart
4	Child Health Record	1 = YES; 0 = NO	Child Health Record on patient chart
5	Growth Chart	1 = YES; 0 = NO	Growth chart on patient chart
Α			• For each routine visit:
Routine NB V	<u>íisits</u>		
Visit 1 NB Visit 2 4 WI Visit 3 8 WI Visit 4 16 W Visit 5 24 W Visit 6 52 W	KS ACTUAL KS AGE KS PROVIDER KS KS	Actual Age in wks RN NP MDF MDS OTHER UNKNOWN	• Type of provider: RN refers to a registered nurse, NP refers to nurses who are licensed or certified as a nurse practitioner in any Canadian or American jurisdiction, MDF refers to a Family Practice physician, MDS refers to a MD specialist; "Other" refers to any other recognized health care provider, e.g., audiologist, dietician, CHR, etc
	WT LENGTH HC NUTRITION ASSESS. DEV. ASSESS. PHYS. EXA	1 = YES; 0 = NO	 Each unique provider will also receive a numerical identifier, i.e., RN1, MDO1, etc. UNKNOWN refers to a visit wherein the provider is not identifiable Based on evidence that each variable addressed at each routine visit

	SAFETY COUNSEL GROWTH CHART PLOTTED IMM UTD HGB		 Immunization done at 8, 16, 24 and 52 wk visits as per routine Hgb checked at least once in first 12 months
B Non-routine	Interventions,		· · ·
Referrals, Cor	sults, Follow-up		
12	INTERVENTION INDICATED	1 = YES; LEAVE BLANK = NO	 If an intervention is indicated score +1 for this visit, if not indicated leave cell blank Indication for interventions, e.g.: Hgb < 10 is an indication for Fe Rx intervention Dropping 2 percentiles on growth charts indicates inverstigation re: failure to thrive
13	TYPE OF INTERVENTION	1 = CLINICAL $2 = SOCIAL$	• Note whether a clinical / therapeutic intervention or a social intervention, comment under Remarks prn
14	INTERVENTION INITIATED	1 = YES; 0 = NO	• If intervention is initiated score +1 for this visit
15	APPROP F/U	1 = YES; 0 = NO	 If appropriate follow-up of the intervention is documented score +1, if appropriate F/U not documented, score 0 Indication for follow-up, e.g.: recheck Hgb > Fe intervention
16	REFFERRAL OR CONSULT INDICATED	1 = YES; LEAVE BLANK = NO	 If referral or consultation is indicated score +1 for this visit, if not indicated leave cell blank Indication for referral or consultation, e.g.: Failure to thrive Increased HC Persistent developmental delays

17	REFERRAL OR CONSULT INITIATED	1 = YES; 0 = NO	• If referral or consultation is indicated and initiated score +1 for this visit, if indicated but not initiated, score 0
18	REFERRAL OR CONSULT DONE	1 = YES; 0 = NO	• If referral or consultation occurred score +1 for this visit, if no evidence that it occurred, score 0
19	IND. FOR F/U OF REFERRAL OR CONSULT	1 = YES; 0 = NO	• If a follow-up visit is indicated > referral or consult, score +1, if not documented, score 0
D	OUTCOMES		
20	IMM UTD	1 = YES; 0 = NO	 Immunizations UTD @ 12 months Cut-off to be considered UTD is 54 wks Note possible reasons for not being UTD under Remarks
21	ADEQUATE WT GAIN	1 = YES; 0 = NO	 Tripled birth weight @ 12 months Note possible reasons for unsatisfactory weight gain under Remarks
22	HGB	1 = YES; 0 = NO	 Hgb 11-15 @ 12 months, or 10.5-14.5 if screened at 6 months Note possible reasons for unsatisfactory Hgb / no evidence of screening done under Remarks

Appendix F: Interview Guiding Questions

Semi-structured Interviews:

Nurses:

Can you tell me about your experience in nursing? How many years have you worked as a nurse? What kind of nursing experiences did you have before coming to work in this health center? How long have you worked in the north? How many nursing stations have you worked in? What was your basic level of education in nursing? Have you taken other nursing education since you graduated as a nurse? Have you taken any courses or programs to prepare you to work as an outpost nurse? How long do you plan to continue working in this community? When you leave here, will you continue to work in the north / in a nursing station? How many hours a week do you work here, on average? How many on-call shifts do you do in a week? Is that OK? Too much? Not enough? How many nights a week can you count on getting a good night's sleep? What information / resources do you use to help you make decisions about patient care? Is this information easy to access? What makes it difficult / easy?

Unstructured Interviews:

Nurses:

Can you tell me how the working and living environment here effects how you are able to do your work / provide good patient care?

What kinds of things make it easier to do your work / give good patient care? Can you give me some examples?

What kinds of things make it more challenging to do your work / give good patient care? Examples?

Tell me about referring patients or consulting with GPs or specialists about a patient – how does that work here?

Patients:

Can you tell me about a really good or a poor experience you've had getting treated at the health center?

Tell me what kinds of things might make it easier to get the care you need?

Tell me what kinds of things really frustrate you in getting treated at the health center?

Framework for Analyzing Continuity of Care



Consent Form For Health Providers:

An ethnographic case study exploring how nurses in primary care influence health outcomes in remote aboriginal communities

Principal Investigator:

Dr. Joy Johnson, PhD, RN Professor, School of Nursing University of British Columbia (UBC) Phone xxx-xxx-xxxx

Co-Investigator:

Denise Tarlier, RN, MSN, PhD(c) UBC School of Nursing Phone: xxx-xxx-xxxx

Denise Tarlier, RN is carrying out this study to complete a research thesis for a doctoral degree in nursing. The results of this study will be made available to study participants, the local community, FNIHB/Health Canada, and will be published in nursing, medical and health care journals. The results of this study may also be presented at nursing and health care conferences.

Purpose: The purpose of this research project is to learn more about how outpost nurses provide primary care and influence health outcomes in remote First Nations communities. You have been asked to participate because of your first-hand experience as a health care provider in a remote First Nations community.

Study Procedures: Participating in this study will take approximately 2 hours per week of your time over the six weeks of the study period. Participating may mean being involved in any or all of the following activities:

<u>Observations</u>: The researcher, Denise Tarlier, will observe the nurses, staff and other health providers participating in this study as they go about their daily work in the Health Centre. This will include observing interactions with other health providers and staff (e.g., informal discussions, staff meetings). You may be requested to allow Denise to observe you during a patient visit. In this case, you and the patient(s) will each be asked to give permission for Denise to observe that visit. Other health professionals, staff and patients must also give their verbal or written permission for the researcher to be present. While observing interactions between nurses, staff and patients, Denise may make brief notes to help her accurately recall what she observed.

<u>Interviews</u>: Denise will interview you at least once. Most interviews will be brief, informal conversations lasting 5 to 15 minutes, to discuss a particular episode of patient care. You may also be asked to participate in a longer interview lasting approximately 30 to 60 minutes. All interviews will be conducted at a time and place that is convenient to you. Longer interviews may be tape-recorded, then later transcribed by a typist.

You have the right to refuse to answer questions, to stop the interview or to ask that the tape recorder be turned off during an interview. You may also ask Denise to stop observing at any time.

Confidentiality: All information and documents collected as part of the study will be identified only by a code number known only to Denise. No names or other identifying information will be attached to the information. All documents will be kept in a locked filing cabinet. Participants will not be identified by name in any reports of the completed study. Some information will be stored on a computer until the end of the study; this computer will be password-protected so that Denise will be the only person who has access to the information. Research material will be kept in locked storage for five years, as required by UBC research ethics policy. At the end of the five years, most of the information will be shredded and audiotapes will be demagnetized. Statistical data will be kept for possible use in future studies on the understanding that additional research projects that use this information will be for the purpose of improving health and health care, and will be approved by appropriate University committees.

Remuneration/Compensation: There may be no direct benefits to you for participating in this study, but the knowledge gained through this research may help to improve health care services and the quality of patient care in remote First Nations communities.

Contact for information about the study:

If you have any questions or would like more information about this study, you may contact Dr. Joy Johnson at xxx-xxx-xxxx.

Contact for concerns about the rights of research subjects:

If you have any concerns about your treatment or rights as a research participant, you may contact the Research Subject Information Line in the UBC Office of Research Services at xxx-xxx.

Consent: Your participation in this study is entirely voluntary and you may refuse to participate or withdraw from the study at any time without jeopardy to your employment or professional standing. Participating in this study is not a requirement of your employment with FNIHB and the researcher will not divulge or discuss your participation or non-participation to or with your supervisor.

Your signature below indicates that you have received a copy of this consent form for your own records.

Your signature indicates that you consent to participate in this study.

Participant Signature	Date

Printed Name of the Participant signing above.